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Via U.S. First Class Mail and Electronic Mail to: alfred.a.pantano@usace.army.mil

Colonel Alfred A. Pantano, Jr.
District Commander
U.S. Army Corps of Engineers, Jacksonville District
701 San Marco Boulevard
Jacksonville, FL 32207-0019

**Re: Public Comments on Via Verde Natural Gas Pipeline Project, Permit Application
No. SAJ 2010-02881 (IP-EWG)**

Dear Colonel Pantano:

The U.S. Army Corps of Engineers (the "Corps") is currently reviewing an application for a dredge-and-fill permit under Section 404 of the Clean Water Act ("CWA") submitted by the Puerto Rico Electric Power Authority (the "Applicant") for the proposed Via Verde natural gas pipeline project (the "Via Verde project" or the "proposed project").¹ We appreciate having this opportunity to comment on the proposed project, and we offer these comments to assist the Corps in its review of the permit application. We are submitting these comments on behalf of

¹ GOV'T OF P.R., OFFICE OF THE GOVERNOR, PLANNING BOARD, FEDERAL AND COMMONWEALTH JOINT PERMIT APPLICATION FOR WATER RESOURCE ALTERATIONS IN WATERS, INCLUDING WETLANDS, OF PUERTO RICO (Aug. 2010, modified Nov. 2010) (hereafter "JOINT PERMIT APPLICATION") (App. at 608).

our clients, Juan Cortés Lugo; Sofía Colón Matos; Luis Guzmán Meléndez; Ana Oquendo Andújar; Iván Vélez González; Francisca M. Montero Colón; Sol María De Los Ángeles Rodríguez Torres; Iván Carlos Belez Montero; Arístides Rodríguez Rivera; Ada I. Rodríguez Rodríguez; Alex Noel Natal Santiago; Miriam Negrón Pérez; Francisco Ruiz Nieves; Silvy Jordán Molero; Ana Serrano Maldonado; Félix Rivera González; William Morales Martínez; Trinita Alfonso Vda. De Folch; Alejandro Saldaña Rivera; Dixie Vélez Vélez; Dylia Santiago Collaso; Ernesto Forestier Torres; Miriam Morales González; Fernando Vélez Vélez; Emma González Rodríguez; Samuel Sánchez Santiago; Raquel Ortiz González; Maritza Rivera Cruz; Virginio Heredia Bonilla; Lilian Serrano Maldonado; Yamil A. Heredia Serrano; Jean Paul Heredia Romero; Pablo Montalvo Bello; Ramona Ramos Dias; Virgilio Cruz Cruz; Cándida Cruz Cruz; Amparo Cruz Cruz; Gilberto Padua Rullán; Sabrina Padua Torres; Maribel Torres Carrión; Hernán Padín Jiménez; Rosa Serrano González; Jesús García Oyola; Sucesión de Ada Torres, compuesta por Carmen Juarbe Pérez, Margarita Forestier Torres y Ernesto Forestier Torres; Comité Bo. Portugués Contra el Gasoducto; María Cruz Rivera; Cristóbal Orama Barreiro; Haydee Irizarry Medina; Comité Utuadeño en Contra del Gasoducto; Miguel Báez Soto; and Gustavo Alfredo Casalduc Torres, all of whom will be affected by the proposed Project and some of which are also represented by Puerto Rico Legal Services, Inc. Our clients are farmers whose lands and/or water supply for their crops will be directly impacted by the project; people whose personal security and proprietor interests will be affected due to the proximity of the pipeline to their homes; environmental groups whose aesthetical and environmental interests depend on the ecological integrity of lands, including natural reserves, which will be directly impacted by the project, among many others. These comments have been prepared in consultation with the Environmental and Natural Resources Law Clinic (“ENRLC”) at Vermont Law School.²

For the reasons discussed in these comments, we respectfully urge the Corps to deny the dredge-and-fill permit for the proposed Via Verde project because the Applicant has failed to overcome the strong presumption that less environmentally damaging alternatives exist and that alternatives which avoid wetlands and other special aquatic sites are less environmentally damaging. As a result, the Applicant has failed to make the “clear demonstration” that it must in order to meet its burden of demonstrating that its proposed project is the least environmentally damaging practicable alternative. If and when the Applicant submits sufficient information to allow the Corps to adequately consider its permit application, we urge the Corps to engage in formal consultation with both the U.S. Fish and Wildlife Service (“FWS”) and the National Marine Fisheries Service (“NMFS”) concerning the impacts of the proposed project on federally listed endangered and threatened species, as required under Section 7 of the Endangered Species Act (“ESA”). Moreover, we respectfully urge the Corps to prepare an environmental impact statement (“EIS”) to fully inform both government decisionmakers and citizens about the environmental consequences of the proposed project, as required under the National Environmental Policy Act (“NEPA”). Our comments are organized as follows:

I. OVERVIEW

² We appreciate the substantial contributions to these comments made by student clinicians Kyle Davis, Casey Gray, and Tara Franey from the ENRLC at Vermont Law School, as well as student clinicians Verónica Vidal, Heriberto Torres and Luis Scoutto, from the Legal Aid Clinic at the Inter American University of Puerto Rico School of Law.

- II. THE CORPS CANNOT APPROVE A DREDGE-AND-FILL PERMIT FOR THE VIA VERDE PROJECT AT THIS TIME BECAUSE THE APPLICANT HAS FAILED TO COMPLY WITH SECTION 404 OF THE CLEAN WATER ACT AND CORPS IMPLEMENTING REGULATIONS.
- A. The Applicant Has Failed to Provide Sufficient Information to Allow the Corps to Fully Evaluate Impacts and Ensure Protection of All Waters of the United States.
 - B. The Applicant Has Inappropriately Described the Project Purpose So Narrowly That It Precludes Consideration of Practicable Alternatives.
 - C. The Applicant Has Failed to Demonstrate That the Preferred Alternative Is the "Least Environmentally Damaging Practicable Alternative."
 - D. The Applicant Has Failed to Show That It Has Avoided and Minimized Adverse Impacts.
 - E. The Applicant Has Failed to Demonstrate That It Will Mitigate All Unavoidable Impacts to Aquatic Resources.
- III. THE CORPS MUST ENSURE THAT ITS PERMITTING DECISION CONCERNING THE VIA VERDE PROJECT COMPLIES WITH THE ENDANGERED SPECIES ACT.
- A. The Corps Has a Duty to Ensure That the Proposed Project Will Not Jeopardize Any Endangered or Threatened Species.
 - B. The Corps Must Make an Initial Inquiry to NMFS to Determine What Marine Species "May be Present" in the Action Area.
 - C. The Corps Must Prepare a Biological Assessment Encompassing Both the Terrestrial and Marine Species in the Action Area.
 - D. Because the Proposed Project Is Likely to "Adversely Affect" Multiple Endangered and Threatened Species, the Corps Must Engage in Formal Consultation with Both FWS and NMFS.
 - E. The Corps Cannot Authorize Any Action That Constitutes an "Irreversible and Irretrievable Commitment of Resources" During the Consultation Process.
 - F. The Corps Must Ultimately Ensure That the Proposed Project Avoids Jeopardy By Incorporating Terms and Conditions Required by FWS and/or NMFS Through "Reasonably Prudent Alternatives" and/or "Incidental Take Statements" into the Permit; or, If Necessary, By Denying the Permit.
- IV. THE CORPS MUST PREPARE A FULL ENVIRONMENTAL IMPACT STATEMENT FOR THE VIA VERDE PROJECT UNDER NEPA.
- A. The Proposed Project Is a "Major Federal Action."
 - B. The Proposed Project "Significantly Affects the Quality of the Human Environment."
 - C. The Applicant Has Not Demonstrated that Mitigation Measures Would Reduce All Impacts to Below the Significance Threshold.
 - D. The Corps Cannot Avoid Preparing an EIS Under NEPA By Tiering to the Puerto Rico EIS.

- V. THE CORPS MUST INCLUDE A THOROUGH ANALYSIS OF THE VIA VERDE PROJECT IN ITS ENVIRONMENTAL IMPACT STATEMENT.
- A. The Corps EIS Must Include a Broader and More Accurate Statement of the Purpose and Need for the Proposed Project.
 - B. The Corps EIS Must Analyze a Reasonable Range of Alternatives.
 - C. The Corps EIS Must Include a Thorough Analysis of the Direct and Indirect Effects of the Proposed Project.
 - D. The Corps EIS Must Include a Thorough Analysis of the Cumulative Impact Associated with the Proposed Project.
 - E. The Corps EIS Should Be Prepared in Conjunction with FWS and NMFS as Cooperating Agencies.
- VI. THE CORPS SHOULD INCLUDE EXTENSIVE PUBLIC INPUT AND PARTICIPATION AT EVERY STAGE IN THE DEVELOPMENT OF THE ENVIRONMENTAL IMPACT STATEMENT FOR THE VIA VERDE PROJECT.
- VII. CONCLUSION

I. OVERVIEW

The proposed Via Verde project involves the construction of a major industrial pipeline facility directly through one of the most important biodiversity hotspot regions in the world.³ Because this project would have substantial adverse impacts on a large number of endangered species, protected nature reserves, unique karst formations, and other sensitive receptors in the vicinity of the proposed project, as well as on the local communities in Puerto Rico that use and enjoy these resources, the project must be carefully analyzed by the Corps before approval. Indeed, it is difficult to imagine a project more deserving of careful scrutiny and consideration by both government decision makers and members of the public.

According to the Applicant, the proposed project would involve the construction of a 92-mile natural gas pipeline that would run from the EcoEléctrica Liquefied Natural Gas (“LNG”) Terminal in Peñuelas on the southern coast, northward across the interior of the island to the Cambalache Termoeléctricas Authority Central power plant in Arecibo on the northern coast, and then eastward along the northern coast to the Palo Seco power plant in Toa Baja and the San Juan power plant in San Juan.⁴ The proposed project’s footprint would cover approximately

³ See *Herbario del Departamento de Biología Universidad de Puerto Rico-Río Piedras*, HERBARIO UPRRP, <http://dps.plants.ox.ac.uk/bol/UPRRP/Home/Index> (last visited Apr. 18, 2011) (describing the Caribbean region as one of the top three most important biodiversity hotspots).

⁴ JOINT PERMIT APPLICATION, *supra* note 1, App. at 614. Prior to this proposed project, the Applicant submitted an application for a similar project – a 42-mile long natural gas pipeline called Gasoducto del Sur – to connect the EcoEléctrica LNG Terminal in Peñuelas to the Aguirre power plant. This project would have necessitated modification of the LNG terminal to install two heat exchange vaporizers, and it required NEPA review. Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Kimberly D. Bose, Sec’y, Fed. Energy Regulatory Comm’n (Oct. 25, 2010) (App. at 910). Construction on Gasoducto del Sur commenced in 2008. *Id.* As a result, communities on the southern coast generated much public outcry over the project, which led to the project being abandoned in 2008. Letter from Donald W. Kinard, Chief, Regulatory Div., U.S. Army. Corps of Engineers-Antilles Office, to Lawrence Evans, Senior Env’tl. Expert, PC Peabody (Oct. 8, 2010) (App. at 887).

1,114 acres, and it would require a 150 to 300-foot wide construction right-of-way (“ROW”) and a 50-foot permanent maintenance ROW.⁵ The Applicant has acknowledged that the Via Verde project would involve 158 waters of the U.S., impacting an estimated 369 acres in those waters.⁶ Additionally, FWS has indicated that 32 endangered or threatened species under its jurisdiction may be present in the vicinity of the proposed pipeline,⁷ and there may be additional federally listed coastal and marine species under the jurisdiction of NMFS present in the vicinity of the proposed project.⁸ Because the 92-mile pipeline would travel across the interior of the island as well as along much of its northern coastline, it would traverse several ecologically sensitive and protected land areas, including Commonwealth Forests, Natural Reserves, forested volcanic and karst areas, and portions of privately-owned lands participating in conservation programs due to their high ecological value.⁹

The Corps has already received a wide range of comments from the public and interested federal agencies.¹⁰ Many of these comments have emphasized the magnitude of the environmental impacts of the project.¹¹ For instance, the U.S. Department of Agriculture (“USDA”) has submitted comments stating that “[i]n the many years we have been examining permits for activities that affect [waters of the U.S.] in Puerto Rico, we have never seen one with such broad scale effects.”¹² Similarly, FWS has provided extensive critical comments emphasizing the likelihood that the proposed project would have adverse impacts on endangered and threatened species.¹³

In light of these substantial threats to some of the most unique and sensitive ecological resources in the world, it is critical that the Corps fulfill its statutory responsibilities under the CWA, ESA, and NEPA to ensure that a project of this magnitude is evaluated comprehensively and transparently with the goal of avoiding and minimizing environmental impacts to the maximum extent possible.

⁵ See JOINT PERMIT APPLICATION, *supra* note 1, App. at 618; P.R. Electric Power Auth., *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 443).

⁶ *Id.* App. at 655.

⁷ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Yousev Garcia, Dir. Asesores Ambientales y Educativos, Inc. (June 30, 2010) (App. at 587–90).

⁸ E-mail from Lisamaire Carrubba, Protected Resources Div., Nat’l Marine Fisheries Serv.-Caribbean Office, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Nov. 19, 2010, 4:17:58 PM) (App. at 948).

⁹ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps Eng’s-Antilles Office (Oct. 18, 2010) (App. at 889–90).

¹⁰ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1147–48).

¹¹ *Id.*

¹² Letter from Ariel E. Lugo, Dir., Int’l Inst. Tropical Forestry, U.S. Dept. Agric., to Sindulfo Castillo, Section Chief, U.S. Army Corps Engineers-Antilles Office (Dec. 3, 2010) (App. at 1092).

¹³ See *infra* Section III-C of these comments (discussing FWS technical advice and deficiencies of the Applicant’s survey protocols).

II. THE CORPS CANNOT APPROVE A DREDGE-AND-FILL PERMIT FOR THE VIA VERDE PROJECT AT THIS TIME BECAUSE THE APPLICANT HAS FAILED TO COMPLY WITH SECTION 404 OF THE CLEAN WATER ACT AND CORPS IMPLEMENTING REGULATIONS.

The Corps has a duty to restore and protect the integrity of waters of the United States, including wetlands.¹⁴ The Corps carries out this duty by issuing permits for the “discharge of dredged or fill material into the navigable waters.”¹⁵ Through regulations and guidance, the Corps has established a process, standards, and requirements for the issuance of such permits.¹⁶ Most importantly, these permits must be issued in strict compliance with the guidelines established by EPA and the Corps under Section 404(b)(1) of the CWA (“Guidelines”).¹⁷

The Applicant has asked the Corps to approve the Via Verde project without substantial review by seeking authorization under a series of nationwide permits (“NWP”). The Corps has appropriately rejected this request and stated that its evaluation will proceed under the agency’s individual permitting process because the proposed project raises “environmental and public interest concerns which cannot be adequately evaluated under a NWP.”¹⁸ We agree with the Corps that the review of this proposed project should proceed under the agency’s individual permitting process because of the large-scale nature of the proposal and the large number of surface waters, wetlands, hydrological systems, and other receptors that would be affected by the construction and operation of the proposed project.

As explained below, however, the Applicant has failed to provide sufficient information in support of its permit application, making it impossible for the Corps to adequately review or approve this permit in accordance with the Guidelines unless it receives substantial additional information from the Applicant. The Corps has the authority to simply deny the permit application now rather than struggling to obtain the necessary information from the Applicant. In our view, a permit denial would be the most efficient and appropriate course of action at this time.

A. The Applicant Has Failed to Provide Sufficient Information to Allow the Corps to Fully Evaluate Impacts and Ensure Protection of All Waters of the United States.

The Guidelines require that “dredged and fill material should not be discharged into the aquatic ecosystem, unless it can be demonstrated that such a discharge will not have an unacceptable adverse impact either individually or in combination with known and/or probable impacts of other activities affecting the ecosystems of concern.”¹⁹ Additionally, the degradation and destruction of wetlands and other special aquatic sites are considered “among the most severe

¹⁴ 33 U.S.C. § 1251(a) (2006).

¹⁵ 33 U.S.C. § 1344 (2006).

¹⁶ 33 C.F.R. § 320.4 (2010); 40 C.F.R. §§ 230.1-98 (2010).

¹⁷ 33 U.S.C. § 1344(b)(1) (2006); 40 C.F.R. § 230.1 (2010).

¹⁸ Letter from Donald W. Kinard, Chief, Regulatory Div., U.S. Army. Corps of Engineers-Antilles Office, to Lawrence Evans, Senior Envtl. Expert, PC Peabody (Oct. 8, 2010) (App. at 887).

¹⁹ 40 C.F.R. § 230.1(c) (2010).

environmental impacts.”²⁰ In recognition of their importance, the Corps’ stated policy for wetlands is “no net loss.”²¹ Corps regulations specifically identify wetlands as a “special aquatic site,” and detail their outstanding value and particular sensitivity to disturbances.²²

With respect to the Via Verde project, the Corps does not have sufficient information to determine the extent of the adverse impacts on aquatic ecosystems or otherwise make the necessary factual determinations required by the Guidelines.²³ The following are just a few examples of the information gaps and flawed analysis in the Applicant’s submissions:

- The Applicant has indicated that the proposed project would involve 165 crossings of waters of the United States.²⁴ Ninety-nine of these crossings are characterized as impacting wetlands.²⁵ The Corps has not yet ground-truthed the Applicant’s Jurisdictional Determination, so these numbers may not represent the full scale of the waters impacted.²⁶ The Applicant describes eight of these wetland crossings as having no impact, yet fails to provide any supporting analysis or demonstration showing that there will be no impacts.²⁷ These eight crossings are separate from the crossings that would be constructed using a method that the Applicant asserts will produce no impacts, as discussed below.
- The Applicant has also indicated that 20 of the crossings would be constructed using a horizontal directional drilling (“HDD”) technique, and the Applicant calculates zero acres of temporary impacts for these crossings without providing supporting analysis.²⁸ The Applicant’s assumption of zero impacts is unreasonable given the possibility of release of the drilling fluid during construction, or a failure of the pipeline during operation, as well as the impacts associated with the required staging areas.²⁹ The Applicant states that staging areas at entry and exit sites for HDD crossings should be considered a part of temporary impacts, unless entirely contained in uplands areas, and the Applicant allocates a fixed area for such

²⁰ 40 C.F.R. § 230.1(d) (2010).

²¹ Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19594 (April 10, 2008).

²² 30 C.F.R. § 230.14 (2010).

²³ 40 C.F.R. § 230.11 (2010).

²⁴ JOINT PERMIT APPLICATION, *supra* note 1, Table 5, App. at 657 and Table 6, App. at 659.

²⁵ *Id.*, Table 6, App. at 659.

²⁶ Letter from Francisco E. Lopez Garcia, Head, Env’tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1214).

²⁷ JOINT PERMIT APPLICATION, *supra* note 1, Table 6, App. at 659.

²⁸ *Id.*, Table 5, App. at 657.

²⁹ Letter from Carl-Axel P. Soderberg, Dir. Caribbean Env’tl. Prot. Agency, to Joseph M. Rosado, Deputy Dist. Engineer for the Antilles, U.S. Army Corps of Engineers-Antilles Office (Dec. 21, 2010) (App. at 1138); Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1151)

impacts at 40,000 square feet per work pad.³⁰ However, in the Applicant's table quantifying the temporary impacts, no impacts for HDD work pads are identified.³¹

- The Applicant asserts that 48 crossings would be constructed using flume, dam-and-pump, or open-ditch methods.³² With respect to these crossings, the Applicant identifies temporary impacts of 2.59 acres.³³ This calculation is flawed, however. The Applicant states in one place that the temporary impacts to non-wetland waters of the United States were calculated by multiplying a 150-foot ROW width by the linear length of the crossing.³⁴ However, the Applicant actually calculated the amount of temporary impacts for these crossings by multiplying the linear length of the crossing by 100 feet.³⁵
- The Applicant classifies 90 crossings as "wetland crossings" and these crossings will have 182.15 acres of temporary impacts.³⁶ The Applicant reached this area by multiplying the linear length of the crossings by a 50-foot ROW, instead of a 150-foot ROW. While the Applicant has stated that only the 50-foot ROW will be cleared for some wetland crossings, this does not adequately demonstrate that impacts will be restricted to those 50-feet.³⁷ EPA has specifically commented upon the continual confusion that results from the Applicant's references to 150, 100, and 50-foot ROWs.³⁸
- The Applicant quantifies the total area of temporary impacts as 151.76 acres.³⁹ However, adding all the "temporary impacts" calculated by the Applicant in Tables 5 and 6 of the permit application yields a total temporary impact area of 184.74 acres.⁴⁰ The inconsistency of these figures calls the Applicant's entire analysis of the extent of water impacts into question.

³⁰ JOINT PERMIT APPLICATION, *supra* note 1, at 656.

³¹ *Id.*, Table 5, App. at 657, and Table 6, App. at 659. For example, the crossing C-2 is listed as having a length of 65 feet, but the Applicant lists the temporary impacts associated with this crossing as 0 acres. C-2 is listed as a Type 1, or HDD crossing, in Table 7, App. at 679.

³² *Id.* App. at 674 and Table 5, App. at 657.

³³ *Id.*, Table 5, App. at 657. We calculated this number by summing the values in the "Temporary Impacts" column of the table.

³⁴ *Id.* App. at 656.

³⁵ *Id.* App. at 657. For example, the crossing designated C-9 is listed as having a length of 44 feet. Under the Applicant's stated method of calculation of temporary impacts, the area of impact would be 0.15 acres. However, the acreage listed in the table is 0.10 acres, which would be obtained if the length was multiplied by 100 feet, rather than 150 feet.

³⁶ *Id.*, Table 6, App. at 659. We calculated this number by summing the values in the "Temporary Impacts" column of the table.

³⁷ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Feb. 24, 2011) (App. at 1396).

³⁸ Letter from Carl-Axel P. Soderberg, Dir. Caribbean Env'tl. Prot. Agency, to Sindulfo Castillo, Chief, Regulatory Div., U.S. Army. Corps of Engineers-Antilles Office (April 1, 2011) (App. at 1415).

³⁹ JOINT PERMIT APPLICATION, *supra* note 1, App. at 663.

⁴⁰ JOINT PERMIT APPLICATION, *supra* note 1, Tables 5, App. at 657, and Table 6, App. at 659.

- The Applicant’s limitation of impacts to the ROW width (even the 150-foot ROW) in the calculations above is flawed in and of itself. The Applicant has not considered impacts from the construction work and maintenance of the ROW that may extend beyond the ROW by disrupting water flow or segmenting aquatic habitats. The Corps is required to make written findings on these and other kinds of secondary impacts.⁴¹
- The Applicant mistakenly categorizes the impacts in the above analyses as temporary. Although the Applicant claims that the construction areas will be re-graded to the original topography, topsoil will be replaced, and fill material will be removed, there is no accompanying analysis or demonstration showing that these practices will completely restore the aquatic resources to their previous state.⁴² Both FWS and USDA point out the flaws in this “temporary impacts” approach, noting that slipshod construction practices and soil compaction can create permanent impacts to wetland areas.⁴³ EPA also questions the Applicant’s concept of temporary impacts.⁴⁴ This inappropriate categorization of the impacts as temporary will be discussed in more detail in sub-section D of this Section.

As noted above, the Corps has acknowledged that it has not yet ground-truthed the Applicant’s Jurisdictional Determination, so there may be additional impacts to waters of the U.S.⁴⁵ In light of the major flaws described above – including unreasonable assumptions, calculation errors, information gaps, and other problems – the task ahead of the Corps is far more than mere ground-truthing. The Corps simply cannot rely on the information provided by the Applicant. In order to determine whether the proposed Via Verde project will, either individually or in combination with other activities, have any “unacceptable adverse impact” on wetlands, aquatic ecosystems, special aquatic sites, or other ecosystems of concern, and to determine whether its permitting decision will conform to its “no net loss” policy, the Corps would have to conduct its own complete analysis of the extent of aquatic resource impacts, as well as the efficacy of proposed measures to avoid or minimize such impacts.

B. The Applicant Has Inappropriately Described the Project Purpose So Narrowly That It Precludes Consideration of Practicable Alternatives.

The Corps should reject the narrow project purpose suggested by the Applicant because it inappropriately precludes consideration of practicable alternatives. In order to obtain a dredge-and-fill permit, the Applicant must show that the proposed project is the “least environmentally damaging practicable alternative.”⁴⁶ A permit applicant may not artificially narrow its purpose

⁴¹ 40 C.F.R. § 230.11 (2010).

⁴² JOINT PERMIT APPLICATION, *supra* note 1, App. at 664.

⁴³ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1112); Letter from Ariel E. Lugo, Dir., Int’l Inst. Of Tropical Forestry, U.S. Dep’t Agric., to Sindulfo Castillo, Section Chief, U.S. Army Corps Eng’s-Antilles Office (Dec. 3, 2010) (App. at 1092).

⁴⁴ Letter from Carl-Axel P. Soderberg, Dir. Caribbean Env’tl. Prot. Agency, to Sindulfo Castillo, Chief, Reg. Div., U.S. Army. Corps Eng’s-Antilles Office (April 1, 2011) (App. at 1415).

⁴⁵ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1146).

⁴⁶ 40 C.F.R. § 230.10(a) (2010).

statement to constrict the practicable alternatives to the proposed project at hand.⁴⁷ The Corps must independently evaluate and define the purpose for the proposed project in order to conduct the appropriate public interest review⁴⁸ and to comply with NEPA.⁴⁹ In doing so, the Corps must balance what the Applicant has proffered with its own review of the facts⁵⁰ and exercise a degree of skepticism in dealing with self-serving statements from the Applicant.⁵¹ In its own decision documents, the Corps has cautioned that giving too much deference to the Applicant's definition of the project purpose may lead to a "characterization of project purpose in such a way as to preclude the existence of practicable alternatives."⁵² Furthermore, the Corps has stated that when an applicant's purpose consists of specific components located in one specific area, "a question of fact arises: i.e., whether all component parts or some combination of them, or none, really must be built or must be built in the specific identified area for the project to be viable...⁵³

Here, the Applicant has narrowly defined the purpose of the Via Verde project as being "to reduce [the Applicant's] dependence on oil for the production of electricity by converting electrical power generation facilities along the north coast of Puerto Rico from oil based fuels to natural gas in the most economical and practical method possible and using available infrastructure whenever possible."⁵⁴ Other information provided by the Applicant, however, contradicts this narrow statement by indicating that the actual purpose of the project is to serve the more general goal of reducing its dependence on oil and providing an alternative fuel supply – natural gas – to its integrated electric generating system. For instance, the Applicant's strategic plan mandates a more general goal of reducing its dependence on oil used to produce electricity to below 50 percent by the year 2014.⁵⁵ The Governor of Puerto Rico has also issued an Emergency Order requiring the implementation of an expedited process to develop a new electric generation system across the entire island that uses alternative sources of energy, particularly renewable and sustainable energy.⁵⁶ The Emergency Order specifically proposes natural gas,

⁴⁷ See *Florida Clean Water Network, Inc. v. Grosskruger*, 587 F. Supp. 2d 1236, 1244 (citing *Sylvester v. U.S. Army Corps Eng'rs*, 882 F.2d 407, 409 (9th Cir.1989)) ("[D]efinition of a project purpose may not be used by the sponsor as a tool to artificially exclude what would otherwise be practicable alternatives to the project, in other words, the sponsor's project purpose must be 'legitimate.' Thus, the project purpose may not be defined so narrowly that it make what is practicable appear impracticable... ." This same issue also arises in the NEPA context, as discussed further in Section V-A of these comments.

⁴⁸ 33 C.F.R. § 320.4 (2010).

⁴⁹ 33 C.F.R. Pt. 325 app. B §§ 7(b) and 9(b)(4) (2010); *Citizens against Burlington, Inc. v. Busey*, 938 F.2d 190, 196 (D.C. Cir. 1991).

⁵⁰ Memorandum Thru Commander, U.S. Army Engineer Division, Lower Mississippi Valley Re: Permit Evaluation, Plantation Landing Resort (April 21, 1989) (App. at 5)(stating that although the Corps should consider an applicant's statement of project purpose, "the Corps must determine and evaluate these matters itself, with no control or direction from the applicant, and without undue deference to the applicant's wishes").

⁵¹ *Simmons v U.S. Army Corps Eng's*, 120 F.3d 664, 669 (7th Cir. 1997); *Citizens against Burlington, Inc.*, 938 F. 2d at 209.

⁵² Memorandum Thru Commander, U.S. Army Engineer Division, Lower Mississippi Valley Re: Permit Evaluation, Plantation Landing Resort (April 21, 1989) (App. at 5).

⁵³ *Id.* App. at 7.

⁵⁴ JOINT PERMIT APPLICATION, *supra* note 1, App. at 618.

⁵⁵ *Id.* App. at 617.

⁵⁶ Letter from the Office of the Governor, to Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (December 3, 2010) (App. at 978) ("Executive Order OE-2010-034 the Governor declared an

solar, biomass, hydroelectric, marine, and wind energy as appropriate alternatives to oil.⁵⁷ Additionally, various other statements and information provided by the Applicant indicate that the purpose of the Via Verde project is to deliver natural gas from the EcoEléctrica LNG Terminal to its integrated system, encompassing plants on both the north and south coasts of Puerto Rico.⁵⁸

The Applicant's purpose statement also appears too narrow when viewed in conjunction with the various questions regarding the capacity of the EcoEléctrica LNG Terminal to supply sufficient natural gas to operate the northern power plants along the Via Verde pipeline route without further modification of the LNG Terminal facility, which would require approval from the Federal Energy Regulatory Commission ("FERC"). The Applicant contends that the EcoEléctrica LNG Terminal can provide enough natural gas to serve the stated purpose of the Via Verde project (i.e., running the Applicant's three northern power plants, Cambalache, Palo Seco, and San Juan plants at a reasonable capacity) without any additional FERC approval.⁵⁹ For the reasons discussed in more detail in Section V-A of these comments, however, it remains unclear whether EcoEléctrica can in fact provide the Via Verde project with enough natural gas to run the three northern power plants and other plants in the Applicant's system at a reasonable capacity, without further modification of the LNG terminal or another storage and delivery option for natural gas.

Based on the information provided and statements made by the Applicant, the Corps should properly define the project purpose as helping the Applicant achieve a generalized goal of reducing its dependence on oil by providing for the delivery of one or more alternative fuel

emergency regarding the electric generation infrastructure of Puerto Rico and ordered the utilization of an expedited process to develop projects that would produce a new energy generation infrastructure that uses alternative sources than those derived from oil, sources of renewable suitable energy and alternative renewable energy in Puerto Rico.") (Translated by ENRLC).

⁵⁷ Resolution of the Governor of Puerto Rico Office of the Governor, Junta De Planificacion de Puerto Rico, Consulta No. 2010-62-0210-JGE-T (Dec. 1, 2010) (App. at 979).

⁵⁸ See Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1218) ("[C]onsidering the modifications already approved by [FERC], the EcoEléctrica facility will be able to supply the Via Verde natural gas needs; determined at full capacity, for the San Juan 5 & 6 and Cambalache Combined Cycle Units. Additional product will be available to fuel the Costa Sur 5 & 6 steam units based on [the Applicant]'s operating determination."); See also Letter from Angel Rivera Santa, Dir., Planning & Env'tl. Protection, P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Mar. 7, 2011) (App. at 1408) ("[T]he natural gas supply for the Project (approximately 93MM scf/day) will be purchased by [the Applicant] in accordance with the Order and Authorization granted by FERC in 2009. This amount of gas will be utilized by [the Applicant] in fueling the power plants that are part of its generating system . . . [W]ith the natural gas volumes mentioned above, [the Applicant] will be able to fuel, on different operational and loads ratios, Units 5 & 6 of the San Juan Steam Plant, Units 5 & 6 that recently were converted into dual fuel operation located at the South Coast plant, and [the Applicant]'s other co-fired generating units."); See also JOINT PERMIT APPLICATION, *supra* note 1, at 616 (stating that the goal of the Via Verde project is provide efficient, cost effective electricity in compliance with state and federal regulations "to convert existing electrical power generation facilities from oil based fuels to natural gas."); See also P.R. ELEC. POWER AUTH. Chapter 4: Study of Alternatives and Selection of the Alignment, in ENVTL. IMPACT STATEMENT (2010) (App. at 350) (indicating the Applicant included a wider range of alternatives in the state EIS: wind, PV, and solar heaters).

⁵⁹ Letter from Angel L. Rivera Santana, Director, Planning and Environmental Division, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (March 7, 2011) (App. at 1408).

sources to its electricity generating system. This is important in the permitting context because there may be other practicable alternatives that would meet this goal of promoting alternative energy use besides constructing a natural gas pipeline across the interior of the island from south to north, and along a long stretch of the northern coastline. The selection of one of these alternatives could potentially avoid some of the most problematic impacts associated with the proposed project, including damage to wetlands and other ecologically sensitive and protected waters of the United States, such as those found in Commonwealth Forests, Natural Reserves, and forested volcanic and karst areas, especially those which serve as important habitat for endangered and threatened species.

C. The Applicant Has Failed to Demonstrate That the Preferred Alternative Is the “Least Environmentally Damaging Practicable Alternative.”

As noted above, in order to obtain a dredge-and-fill permit, the Applicant bears the burden of showing that the proposed project is the “least environmentally damaging practicable alternative.”⁶⁰ In addition, for a non-water dependent project, there is a presumption that a less environmentally damaging practicable alternative exists.⁶¹ This presumption is “very strong,”⁶² and it requires more than consideration of a range of alternatives – the presumption must be rebutted by a “clear demonstration.”⁶³ There is also a presumption that any practicable alternative that does not involve special aquatic sites is less environmentally damaging than one that does.⁶⁴ Practicability should be assessed in terms of cost, technology, and logistics in light of the overall project purpose, but “[t]he mere fact that an alternative may cost somewhat more does not necessarily mean it is not practicable.”⁶⁵ The Corps is required to actually evaluate the criteria used to compare alternative sites, and its analysis must be “objective and balanced, and not be used to provide a rationalization for the applicant’s preferred result.”⁶⁶

Although the Applicant claims the project’s purpose is water dependent,⁶⁷ the Corps is correct in stating that it is not water dependent.⁶⁸ Accordingly, the strong presumption concerning the existence of less environmentally damaging practicable alternatives is applicable to the proposed project. The Applicant has failed to overcome this presumption. Indeed, the materials submitted by the Applicant in support of its permit application do not make the necessary clear demonstration that no other less environmentally damaging alternatives exist, nor do the Applicant’s materials establish the Via Verde project as the least environmentally damaging practicable alternative.

⁶⁰ *Korteweg v. U.S. Army Corps Eng’s*, 650 F. Supp. 603, 604 (D. Conn. 1986); 40 C.F.R. § 230.10(a) (2010).

⁶¹ *Greater Yellowstone Coalition v. Flowers*, 359 F.3d 1257, 1269 (10th Cir. 2004); 40 C.F.R. § 230.1(a)(3) (2010).

⁶² *Friends of Magurrewock, Inc. v. U.S. Army Corps Eng’s*, 498 F. Supp. 2d 365, 371 (D. Me. 2007).

⁶³ *Nw. Bypass Group v. U.S. Army Corps Eng’s*, 552 F. Supp. 2d 97, 108 (D.N.H. 2008) (requiring the Corps to do more than consider a range of alternatives); 40 C.F.R. § 230.1(a)(3) (2010)(requiring clear demonstration).

⁶⁴ 40 C.F.R. § 230.10(a)(3).

⁶⁵ 45 Fed. Reg. 85,336, 85,339 (Dec. 24, 1980). See *Bahia Park, S.E. v. United States*, 286 F. Supp. 2d 201, 207 (D.P.R. 2003)(holding that high-cost alone did not eliminate an alternative from consideration).

⁶⁶ U.S. Dept. Army, Hartz Mountain 404(q) Elevation: HQUSACE Findings (July 25, 1989) (App. at 25).

⁶⁷ JOINT PERMIT APPLICATION, *supra* note 1, App. at 616.

⁶⁸ E-mail from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office, to Lawrence Evans, Senior Envtl. Expert, PC Peabody (Oct. 20, 2010, 10:29 p.m.) (App. at 903).

As a result of the Applicant's unduly narrow statement of purpose described above, its alternatives analysis is fundamentally flawed. For instance, the Applicant's alternatives analysis does not include some of the alternatives discussed in the Puerto Rico EIS.⁶⁹ Although the Applicant has attempted to correct this deficiency by informing federal agencies that the alternatives analysis in the permit application and in the Puerto Rico EIS should be reviewed together to provide a complete alternatives analysis, the collective information still does not adequately address all practicable alternatives.⁷⁰ If a broader and more appropriate statement of purpose is utilized, additional alternatives and combinations of alternatives are available and should be evaluated. For instance, the alternatives analysis should include the possibility of converting one or more of the Applicant's south coast power plants to natural gas to meet the goal of reducing the island's overall dependence on oil, as established by the Applicant's Strategic Plan and the Governor's Emergency Order.⁷¹ For example, the Costa Sur plant could be converted to natural gas along with one of the northern power plants, which may eliminate the need for the east-west portion of the Via Verde project, particularly if other alternative energy sources could be utilized to supplement energy demand in urban areas like San Juan. Other alternatives for the storage and delivery of natural gas to the Applicant's system should also be considered. In fact, the Applicant appears to be currently contracting for one or more floating storage and regasification units ("FSRUs") that could provide natural gas any number of its facilities.⁷²

Even if the Corps accepts the Applicant's narrow purpose of providing natural gas to the northern power plants, the alternatives analysis must include alternatives that could achieve this objective with less environmental damage than the proposed project. For instance, FSRUs should have been fully evaluated for each north coast plant. An alternative that eliminates or scales back a portion of the proposed pipeline, such as the east-west portion, should have also been evaluated. Given the presumption in favor of alternatives that do not affect wetlands or other special aquatic sites, the alternatives analysis also should have included one or more routes specifically designed to maximize avoidance of these areas. Although the Applicant provided some supplemental alternatives analysis, it still only analyzes the same three broad alternatives that were included in the initial permit application, fails to include other renewable energy

⁶⁹ Compare JOINT PERMIT APPLICATION, *supra* note 1, App. at 628 (analyzing the no action, terrestrial pipeline, new San Juan terminal, and deepwater port alternatives); with P.R. ELECTRIC POWER AUTH. *Chapter 4: Study of Alternatives and Selection of the Alignment*, in ENVTL. IMPACT STATEMENT (2010) (App. at 332) (analyzing the no action, terrestrial pipeline, new San Juan terminal, deepwater port, and the use of renewable energy alternatives).

⁷⁰ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan. 28, 2011) (App. at 1214).

⁷¹ See *infra* Section V-A of these comments.

⁷² *Excelerate Awarded Puerto Rico FSRU Contract*, ICIS HEREN (Mar. 7, 2011, 15:32:05) <http://www.icis.com/heren/articles/2011/03/07/9441498/lng/lmd/excelerate-awarded-puerto-rico-fsru-contract.html>. According to Francisco E. Lopez, a general manager for the Applicant, Excelerate has been handed a contract to provide the Applicant with a FSRU, which will provide an entry point for LNG on the southern end of the island to coincide with the Via Verde project. Furthermore, "[the Applicant] plans to issue a second tender for a FSRU on the island's northern coast." *Id.*

alternatives, and does not include reasonable combinations of methods to provide alternative energy to the Applicant's system or even its facilities on the north coast.⁷³

The Applicant's alternatives analysis fails to provide sufficient detail or evaluation for compliance with the Guidelines.⁷⁴ It is wholly lacking in detail and includes general, conclusory statements about the practicability of the considered alternatives. For example, the Applicant dismisses the Central San Juan deepwater port alternative, in part, because "installing a pipe on the seabed ... would raise issues of safety with Homeland Security," "there are low-income communities close to the project," and "after an analysis of environmental impacts the project would not be favored."⁷⁵ The Applicant's supplemental alternatives analysis still suffers from this flaw, indicating on its rating table that the "terrestrial route" has only temporary impacts to aquatic species, but the buoys and import terminal alternatives have permanent impacts, but fails to fully explain the rationale for this different assessment of impacts.⁷⁶

The Applicant also analyzes the proposed alternatives incorrectly. For instance, the Applicant weighs the environmental impacts and practicability considerations together, which is not what the law requires.⁷⁷ The Applicant must separately analyze (1) whether an alternative is more or less environmentally damaging than the applicant's preferred alternative and (2) whether an alternative is or is not practicable in terms of cost, technology, and logistics.⁷⁸ This flaw is evident, for instance, in the Applicant's pipeline route selection. To select between three different pipeline routes, the Applicant creates a matrix including land use, number of water body crossings, forest and nature reserves, endangered species, architectural and archaeological findings, highway crossings, zoning, topography, and residences.⁷⁹ For each route section, the Applicant has assigned a point to whichever route had the least impacts for each category.⁸⁰ Through this analysis, the Applicant has improperly blended together environmental impacts (such as water body crossings, forest and nature reserves, and endangered species) with other considerations that may impact cost or logistics (such as highway crossings, zoning, and residences). This flaw is also apparent in the supplemental alternatives analysis, where the Applicant includes some criteria relevant to identifying the least environmentally damaging practicable alternative.⁸¹ However, the Applicant also includes factors such as cost, ease of access, and number of road crossings.⁸² Although such considerations may factor into whether an

⁷³ Extended Alternatives Analysis (hereinafter "Extended Alternatives Analysis") (App. at 523). We believe this to be the supplemental alternatives material attached to BCPeabody's February 24, 2011 letter (App. at 1396), however, it is not clear based on the information we received from the Corps.

⁷⁴ While the Applicant may utilize the information developed for a NEPA analysis, the Guidelines indicate that this information may not be sufficient in detail to meet the requirements for factual determinations under the Guidelines. 40 C.F.R. § 230.10(a)(4) (2010).

⁷⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 639.

⁷⁶ Extended Alternatives Analysis, App. at 543.

⁷⁷ JOINT PERMIT APPLICATION, *supra* note 1, App. at 639, 640 (discussing the alternatives in sections 1.7.3.1, 1.7.3.2, and 1.7.3.3, the applicant states: "[a]fter an analysis of environmental impacts the project would not be favored.").

⁷⁸ 40 C.F.R. § 230.10(a)(3) (2010).

⁷⁹ JOINT PERMIT APPLICATION, *supra* note 1, App. at 642.

⁸⁰ JOINT PERMIT APPLICATION, *supra* note 1, App. at 645.

⁸¹ Extended Alternatives Analysis, App. at 543.

⁸² *Id.*

alternative is practicable, the Applicant's method of analysis potentially allows for a significant environmentally damaging alternative to be selected because it is more practicable. This is particularly true where, as in the Applicant's supplemental analysis, the factor of cost is weighted more than an environmental factor such as essential fish habitat.⁸³

The Applicant's route selection analysis also fails to sufficiently evaluate the impacts of each route on aquatic resources. Although the Applicant considers the number of water body crossings, the numbers given do not match up with the final route descriptions of water body crossings as provided in the calculation of temporary impacts,⁸⁴ and they provide no indication of the extent, acreage, or severity of the impacts. Moreover, even if this were a sufficient analysis of the impacts associated with different routes, the Applicant selects the West-East Route C, which crosses more water bodies, implicates more endangered species habitat, and crosses a greater portion of forest and nature reserve land than West-East Route B.⁸⁵ The Applicant explicitly states that Route C was favored simply because it avoided more residences than the other routes.⁸⁶ This choice was made without an adequate evaluation of whether the chosen route was the least environmentally damaging alternative, nor any analysis demonstrating that all other less damaging alternatives than the selected alternative were not practicable.

For the reasons discussed above, the Applicant has failed to overcome the strong presumption that less environmentally damaging alternatives exist and that alternatives which avoid wetlands and other special aquatic sites are less environmentally damaging. As a result, the Applicant has failed to make the "clear demonstration" that it must in order to meet its burden of demonstrating that its proposed project is the least environmentally damaging practicable alternative. Accordingly, the Corps cannot issue a permit in compliance with the Guidelines based on the record before it.

D. The Applicant Has Failed to Show That It Has Avoided and Minimized Adverse Impacts.

In addition to the foregoing, the Applicant must avoid aquatic resource impacts associated with its selected alternative, and it must take "all appropriate and practicable steps" to minimize the potential adverse impacts on the aquatic ecosystem.⁸⁷ Since the Applicant has, to date, failed to demonstrate the Via Verde project will meet this requirement, the Corps cannot issue a permit for the proposed project.

Section 1.8 of the permit application, entitled "Avoidance and Minimization," indicates that the pipeline route was selected to avoid impacts to the human environment, and it includes procedures that the Applicant asserts will minimize impacts to certain endangered species.⁸⁸ Section 4 of the permit application, entitled "Construction Details," provides further information

⁸³ *Id.*

⁸⁴ JOINT PERMIT APPLICATION, *supra* note 1, Table 5, App. at 657.

⁸⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 645.

⁸⁶ JOINT PERMIT APPLICATION, *supra* note 1, App. at 644. Route C was awarded two points for avoiding more residences than the other two routes. *Id.*

⁸⁷ 40 C.F.R. § 230.10(d) (2010).

⁸⁸ JOINT PERMIT APPLICATION, *supra* note 1, App. at 646.

on some construction measures the Applicant asserts will limit the amount of water pollution.⁸⁹ In a January 28, 2011 letter, the Applicant lists a series of other avoidance and minimization measures, including the use of minimally invasive construction methods, avoidance of conservation lands, historic properties, HDD safety measures, and turbidity and erosion prevention measures.⁹⁰ In a February 24, 2011 letter, the Applicant's consultant, BC Peabody, summarizes further measures to avoid and minimize impacts, including avoidance of future development along the ROW, avoidance of El Bosque del Pueblo State Forest, Rio Abajo State Forest, and De la Vega State Forest, as well as avoidance of impacts to Mogotes (rare and sensitive limestone hill karst formations), and the use of HDD in the San Pedro Swamp area.⁹¹

The Applicant's discussion of supplemental avoidance measures is inadequate. While the Applicant indicates the proposed route will be revised to avoid impacts to the above-referenced State Forests and the Mogotes area of Manatí, the Applicant does not make any showing that these measures would actually avoid impacts to wetlands or other waters of the United States. The Applicant also provides no information regarding the extent, nature, or degree of impacts that would be avoided through the use of these measures. The Applicant also fails to explain why similar avoidance is not possible for other areas and waters along its selected route.

The Applicant's discussion of minimization measures is similarly insufficient. As noted above, the Applicant has sporadically identified several measures and practices it may take to minimize impacts to aquatic resources during the construction of the Via Verde project in various submissions. However, a significant portion of these submissions are conclusory and fail to sufficiently explain how, and to what extent, the measures will actually minimize impacts.⁹² They also leave the Applicant with too much leeway, especially when determining what is "possible."⁹³ Because the Applicant has not adequately detailed or evaluated its minimization efforts and has specifically left itself as the sole decision-maker concerning what may be "possible" or "practicable" during construction, it is unclear whether "all appropriate steps" have been taken to minimize the impacts of the Via Verde project. The Applicant's proposal for minimization of aquatic resource impacts largely focuses on its use of HDD. The Applicant has failed, however, to adequately consider the adverse impacts of the HDD process itself.⁹⁴ The Applicant provides a Frac-Out Plan and indicates that the North American Society for Trenchless Technology guidelines and recommendations for karst environments will be followed. The referenced guidelines and recommendations are not provided, however, and there is no

⁸⁹ JOINT PERMIT APPLICATION, *supra* note 1, App. at 666.

⁹⁰ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan 28, 2011) (App. at 1225).

⁹¹ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Feb. 24, 2011) (App. at 1396).

⁹² JOINT PERMIT APPLICATION, *supra* note 1, App. at 668 ("To minimize disturbance to woody riparian vegetation within extra workspaces adjacent to the construction right-of-way at waterbody crossings, the Contractor shall minimize grading and grubbing of waterbody banks.").

⁹³ JOINT PERMIT APPLICATION, *supra* note 1, App. at 668 ("The contractor shall preserve as much vegetation as possible"; soil should be pushed away from waterbodies "when possible"; temporary sediment barriers shall be installed within 24 hours "when practicable.")

⁹⁴ JOINT PERMIT APPLICATION, *supra* note 1, App. at 664.

evaluation of the harm to the environment along the proposed project route that could result from an unanticipated frac-out.⁹⁵

Compliance with the Guidelines requires avoidance and minimization of adverse impacts to jurisdictional waters. Without this evaluation, the Corps is unable to make the necessary factual and compliance determinations required by the Guidelines or to complete the required public interest review, and this precludes it from issuing a permit at this time.

E. The Applicant Has Failed to Demonstrate That It Will Mitigate All Unavoidable Impacts to Aquatic Resources.

In addition to demonstrating avoidance and minimization of impacts, the Applicant must show that all unavoidable impacts will be mitigated.⁹⁶ The Applicant has failed to make such a showing.

Mitigation is accomplished through compensatory mitigation, mitigation bank credits, or in-lieu fee program credits.⁹⁷ In contrast, the Applicant states in Section 2.4.4 of the permit application, entitled “Wetland Mitigation,” that, “as compensation for construction of the pipeline the [A]pplicant will incur the costs of horizontal directional drilling.”⁹⁸ This minimization strategy is not among the permissible forms of mitigation.⁹⁹ Compensatory mitigation must be based on either a functional evaluation or the use of a 1:1 acreage ratio.¹⁰⁰

Additionally, the Corps must consider other factors that could affect wetland functions, many of which have not yet been evaluated by the Applicant, such as the likelihood of success of proposed mitigation measures, difference between the functions lost and the functions gained or preserved by the mitigation project, temporal losses, and the difficulty of restoring the desired resource functions.¹⁰¹ While the Corps is allowed to require a mitigation ratio of less than 1:1, this is disfavored and must be based on a “rigorous functional assessment method” and not conclusory statements made by the Applicant.¹⁰² The Applicant must submit a draft mitigation plan to the Corps for review, which should contain specific and comprehensive information about the proposed mitigation measures, including performance standards and a long-term management plan.¹⁰³

⁹⁵ Letter from Francisco E. Lopez Garcia, Head, Envntl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office (Jan. 28, 2011) (App. at 1224). The Frac-Out Plan is Appendix F to the permit application, and is available at http://www.saj.usace.army.mil/Divisions/Regulatory/DOCS/interest/ViaVerde/31_I-FinalViaVerdeFrac-outPlan_12Sep10.pdf.

⁹⁶ 40 C.F.R. § 230.91(c) (2010).

⁹⁷ 40 C.F.R. § 230.91 (2010).

⁹⁸ JOINT PERMIT APPLICATION, *supra* note 1, App. at 663.

⁹⁹ See 40 C.F.R. § 230.93 (2010) (“Compensatory mitigation may be performed using the methods of restoration, enhancement, establishment, and in certain circumstances preservation”).

¹⁰⁰ 40 C.F.R. § 230.93(f)(1) (2010).

¹⁰¹ 40 C.F.R. § 230.93(f)(2) (2010).

¹⁰² Compensatory Mitigation for Losses of Aquatic Resources, 73 Fed. Reg. 19594, 19506 (April 10, 2008).

¹⁰³ 40 C.F.R. § 230.94(c)(2)-(14) (2010).

The information provided by the Applicant does not demonstrate that appropriate compensatory mitigation will be conducted. First, no functional assessment has been performed for the Via Verde project. To determine the amount of mitigation that would be “sufficient to replace lost aquatic resource functions,” the Corps must first assess what aquatic resource functions would be lost.¹⁰⁴ The Applicant has made several different representations about planned mitigation ratios (stating that they anticipate that mitigation for the temporary impacts to be less than a ratio of 1 acre of temporary impacts to 0.01 acres of compensatory mitigation,¹⁰⁵ and at other times stating that the mitigation for permanent impacts would be completed at a 3:1 ratio¹⁰⁶) without first conducting a functional assessment to determine what mitigation is required.

The Corps should begin by establishing the baseline function of the aquatic resources that would be affected by the proposed project. Then, the Corps would be in a position to evaluate the loss of resource function that would be caused by the construction and the extent to which minimization and restoration measures proposed by the Applicant would be likely to reduce that loss. This analysis should thoroughly evaluate the Applicant’s claims that all impacts to aquatic resources will be temporary.¹⁰⁷ Corps regulations mandate that the Corps issue, in writing, factual findings detailing the short-term and long-term effects of the discharges associated with a proposed project on aquatic resources.¹⁰⁸ These findings must specifically include the cumulative effects and secondary impacts on the resource.¹⁰⁹ Thus, the Applicant’s unsupported statements that there will be no permanent impacts to aquatic resources because the Applicant plans to restore construction areas to their preexisting condition are insufficient.¹¹⁰ Only after the nature and extent of anticipated aquatic resource loss is established could the Corps approve a mitigation ratio and mitigation plan.

Second, the Applicant has failed to submit a draft mitigation plan. This plan must set forth a mitigation ratio that ensures the replacement of lost aquatic resource functions, while accounting and compensating for the method of mitigation, the likelihood of success, differences between function lost and replacement function, temporal losses, the difficulty of restoring or establishing the desired aquatic resource type, and the distance between the compensation site and the lost aquatic resource function.¹¹¹ The only information provided by the Applicant appears to be a single sentence describing the planned mitigation, which would include lowering the elevation of

¹⁰⁴ 40 C.F.R. § 230.93(f)(1) (2010).

¹⁰⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 664.

¹⁰⁶ Letter from Francisco E. Lopez Garcia, Head, Envntl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office (Jan 28, 2011) (App. at 1255).

¹⁰⁷ *Id.* App. at 1254.

¹⁰⁸ 40 C.F.R. § 230.11 (2010).

¹⁰⁹ Cumulative effects are “the changes in an aquatic system that are attributable to the collective effect of a number of individual discharges of dredged or fill materials.” 40 C.F.R. § 230.11(g) (2010). Secondary impacts are “effects on the aquatic ecosystem that are associated with a discharge of dredged or fill materials, but do not result from the actual placement of the dredged or fill material.” 40 C.F.R. § 230.11(h) (2010).

¹¹⁰ JOINT PERMIT APPLICATION, *supra* note 1, App. at 664.

¹¹¹ 40 C.F.R. § 230.93(f)(2) (2010).

sections of the project right-of-way and “establishing” additional herbaceous wetland habitat.¹¹² The Applicant does not designate any particular area for this mitigation or describe the method of reestablishment. Without any indication of how or where the proposed mitigation would occur, the Corps cannot evaluate the likelihood of success, the comparative function of the replacement wetlands, or the distance between the lost and replacement wetlands. The Applicant also mentions a possible restoration and enhancement project in the Caño Tiburones wetland reserve, where the area is dominated by invasive cattails, but only provides that “the method of installing the pipeline in this area will allow replacing the cattail vegetation that existed before the construction with a desirable aquatic species.”¹¹³ Here again, the Applicant has failed to specify the method, the replacement species, and the likelihood of success of the mitigation. The information provided by the Applicant on mitigation is wholly inadequate, and no information has been provided indicating how the Applicant proposes to monitor and evaluate the success of the compensatory mitigation or perform any necessary maintenance.

For the reasons discussed above, the Applicant has failed to provide the Corps with an adequate mitigation plan. Without such a plan, the Corps cannot complete its review or issue the permit in compliance with the Guidelines. The Applicant also has not supplied sufficient information to allow the Corps to proceed with a public interest review. If and when the Corps obtains enough information to review the Via Verde project, it should conduct a rigorous public interest review and permit evaluation with the aim of fully protecting the “chemical, biological, and physical integrity of the Nation’s waters” in accordance with the CWA.¹¹⁴

Corps regulations require that public comments should be considered both in the public interest review and in the permit decision itself.¹¹⁵ Those regulations also allow for public hearings to assist the Corps in making a decision.¹¹⁶ Because of the large scale and controversial nature of the proposed project, the Corps should prioritize public participation. For these reasons and the reasons cited in Section VI of these comments, the Corps should emphasize public participation by extending public comment periods, holding extensive public hearings, and considering this additional material in the public interest review and final determination.

III. THE CORPS MUST ENSURE THAT ITS PERMITTING DECISION CONCERNING THE VIA VERDE PROJECT COMPLIES WITH THE ENDANGERED SPECIES ACT.

The ESA is “the most comprehensive legislation for the preservation of endangered species ever enacted by any nation.”¹¹⁷ The ESA’s “language, history and structure” convinced the U.S. Supreme Court “beyond doubt” that “Congress intended endangered species to be afforded the highest of priorities.”¹¹⁸ Indeed, the “plain intent of Congress in enacting [the ESA] was to halt

¹¹² JOINT PERMIT APPLICATION, *supra* note 1, App. at 664.

¹¹³ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office (Feb. 24, 2011) (App. at 1401).

¹¹⁴ 33 U.S.C. § 1251 (2006).

¹¹⁵ 33 C.F.R. § 337.1(d),(f) (2010).

¹¹⁶ 33 C.F.R. § 327.4 (2010).

¹¹⁷ *Tennessee Valley Auth. v. Hill*, 437 U.S. 153, 180 (1978).

¹¹⁸ *Id.* at 174.

and reverse the trend toward species extinction . . .”¹¹⁹ In light of these lofty objectives, the Supreme Court declared that “endangered species [have] priority over the ‘primary missions’ of federal agencies.”¹²⁰ Furthermore, federal Circuit Courts have held that the ESA imposes an “affirmative duty on each federal agency to conserve each listed species.”¹²¹ As the permitting agency for a Section 404 permit, the Corps is required to ensure that its decision complies with all of the substantive and procedural requirements of the ESA.¹²²

A. The Corps Has a Duty to Ensure That the Proposed Project Will Not Jeopardize Any Endangered or Threatened Species.

In order to achieve the objective of endangered species conservation, the ESA mandates that federal agencies “shall ... ensure that any action authorized, funded, or carried out by such agency . . . is not likely to jeopardize the continued existence of any endangered species or threatened species . . . or adverse modification of habitat of such species.”¹²³

FWS has indicated that the proposed Via Verde pipeline project could adversely impact 32 listed species and one species proposed for listing within its jurisdiction.¹²⁴ As noted previously, the proposed project would bisect the heart of pristine species habitat and require a 150–300-foot construction ROW and a 50-foot permanent ROW.¹²⁵ Moreover, the 92-mile pipeline would traverse Commonwealth Forests, Natural Reserves, forested volcanic and karst areas, and portions of privately-owned lands participating in conservation programs due to their high ecological value.¹²⁶

Many of these areas are recognized in the Puerto Rico Comprehensive Wildlife Conservation Strategy as Critical Wildlife Areas.¹²⁷ They include pristine, undeveloped habitat that is home to Puerto Rico’s most endangered species. For instance, as currently proposed, the pipeline could impact the Bosque Estatal de Río Abajo, a location chosen as a site to establish a second wild population for the critically endangered Puerto Rican parrot. This endemic species is the only native parrot in the United States, and it is considered one of the ten most endangered birds in the

¹¹⁹ *Id.* at 184.

¹²⁰ *Id.* at 185.

¹²¹ *Sierra Club v. Glickman*, 156 F.3d 606, 616 (5th Cir. 1998); *Florida Key Deer v. Paulison*, 522 F.3d 1133, 1138 (11th Cir. 2008).

¹²² U.S. FISH & WILDLIFE SERVICE & NAT’L MARINE FISHERIES SERV., ENDANGERED SPECIES CONSULTATION HANDBOOK 72 (Mar. 1998) (hereinafter “CONSULTATION HANDBOOK”).

¹²³ 16 U.S.C. § 1536(a)(2) (2006).

¹²⁴ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Yousef Garcia, Dir. Asesores Ambientales y Educativos, Inc. (June 30, 2010) (App. at 587–90).

¹²⁵ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps Eng’s-Antilles Office (Oct. 18, 2010) (App. at 889); E-mail from Felix Lopez, Contaminants Specialist, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Marelisa Rivera, Assistant Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Jan. 12, 2011, 08:37 AM) (App. at 1181).

¹²⁶ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps Eng’s-Antilles Office (Oct. 18, 2010) (App. at 889).

¹²⁷ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1113).

world. There are only 22-28 individuals in the Rio Abajo Forest, out of an estimated total of 50 individuals remaining overall.¹²⁸ In an effort to protect endangered and threatened species in Puerto Rico, FWS has spent \$180,000 dollars on restoration activities on private lands participating in conservation programs that the Via Verde project may impact.¹²⁹

With respect to the Via Verde project, NMFS has stated that, since the Applicant noted the project will impact 28.5 acres of essential fish habitat (“EFH”), the Corps “shall not” authorize the project as proposed.¹³⁰ Furthermore, NMFS stated that “no clearing” shall be authorized for areas that support seagrass and mangroves.¹³¹ In light the significant potential for impacts to protected species and their habitat, we write in support of the diligence shown by the Corps, FWS, and NMFS thus far, but we believe continued oversight is required in order to comply with the ESA.

In order to comply with its overriding “no jeopardy” obligation, the Corps must comply with several requirements of the ESA before authorizing any aspect of the Via Verde project to move forward. As discussed in more detail below, the Corps must: (1) make an initial inquiry to NMFS, as it has already done with FWS, to determine what marine species “may be present” in the action area; (2) prepare a biological assessment (“BA”) addressing both terrestrial and marine species that may be present in the project area, and make a determination based on the BA regarding whether the proposed project “may affect” any federally listed species; (3) initiate formal consultation with both FWS and NMFS and cooperate in their efforts to prepare a biological opinion (“BiOp”) to evaluate the effects of the proposed project on listed species; (4) ensure that no “irretrievable or irreversible commitments of resources” are made prior to the completion of the formal consultation process; and (5) incorporate the terms and conditions required by FWS and/or NMFS through any “reasonably prudent alternatives” (“RPAs”) and/or incidental take statement (“ITS”) into the permit to ensure that the Via Verde project will not jeopardize listed species; or if it is not possible to avoid jeopardy, the Corps must deny the permit for the Via Verde project.

¹²⁸ U.S. FISH & WILDLIFE SERV., RECOVERY PLANT FOR THE PUERTO RICAN PARROT iii (2009) *available at* <http://endangered.fws.gov/recovery/index.html#plans>. *See also Puerto Rican Parrot*, <http://www.fws.gov/southeast/prrparrot/> (last updated Feb. 19, 2010) (stating less than 30 species may be left in the wild).

¹²⁹ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1111–1112). Although the Applicant claims these areas will not be impacted, we have seen no plans amending the Via Verde route or other information discussing how impacts will be avoided on these lands. Letter from Francisco B. Lopez Garcia, Head, Env’tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1251–52).

¹³⁰ Letter from Miles M. Croom, Assistant Regional Admin’r, Nat’l Marine Fisheries Serv. S.E. Regional Office, to Col. Alfred Pantano, Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 19, 2010) (App. at 1126). This letter also asks that surveys be conducted for organisms in the estuarine areas that the proposed project impacts. *Id.* To date, the Applicant has not conducted the requested surveys.

¹³¹ *Id.*

B. The Corps Must Make an Initial Inquiry to NMFS to Determine What Marine Species “May be Present” in the Action Area.

Under the ESA, consultation is required for any “agency action”¹³² – including the issuance of a 404 permit¹³³ – that “may affect” endangered and threatened species or their habitat. Since the agency action is the issuance of a permit, the Corps must make an initial inquiry to NMFS and the FWS for a list of species that “may be present,” in the “action area” early on in its consideration of such a permit.¹³⁴

It is our understanding that the Corps has already made such an inquiry to FWS, and that this prompted the FWS’s response on June 30, 2010 providing a list of 32 endangered and threatened terrestrial species that “may be present” in the Via Verde action area.¹³⁵ As far as we know, however, the Corps has not yet made a similar inquiry to NMFS regarding the coastal, marine, or anadromous species that “may be present” in the action area of the proposed project.¹³⁶

Since “action area” is broadly defined, the coastal and marine impacts associated with the Via Verde project, not just the impacts occurring within the project footprint, must be assessed.¹³⁷ As currently proposed, the Via Verde project would be constructed along the northern coast of Puerto Rico,¹³⁸ would adversely impact EFH,¹³⁹ would result in increased tanker ship traffic and other vessel traffic to and from the EcoEléctrica LNG Terminal,¹⁴⁰ and may involve two or more FSRUs off the coast of Puerto Rico in one or more locations in order to provide the natural gas for the pipeline.¹⁴¹ These activities and others associated with the proposed project are likely to

¹³² 16 U.S.C. § 1536(a)(3) (2006); 50 C.F.R. § 402.02 (2010).

¹³³ *Fund for Animals v. Rice*, 85 F.3d 535, 542 (11th Cir. 1996); *Riverside Irrigation Dist. v. Andrews*, 758 F.2d 508, 515 (10th Cir. 1985).

¹³⁴ See 50 C.F.R. § 402.14(a) (2010) (requiring a federal action agency to “review its action . . . to determine whether any action may affect listed species or critical habitat”).

¹³⁵ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Yousev Garcia, Dir. Asesores Ambientales y Educativos, Inc. (June 30, 2010) (App. at 587–90).

¹³⁶ *Regulatory Division-Actions of Interests: Via Verde Natural Gas Pipeline*, U.S. ARMY CORPS ENG’S-JACKSONVILLE DIST., <http://www.saj.usace.army.mil/Divisions/Regulatory/news.htm> (last updated Apr. 4, 2011).

¹³⁷ 50 C.F.R. § 402.02 (2010) (defining action area as “areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action”).

¹³⁸ JOINT PERMIT APPLICATION, *supra* note 1, App. at 659, 750–754, 795–801.

¹³⁹ Letter from Miles M. Croom, Assistant Regional Admin’r, Nat’l Marine Fisheries Serv. S.E. Regional Office, to Col. Alfred Pantano, Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 19, 2010) (App. at 1126). We agree with the Corps decision to initiate consultation with NMFS for EFH pursuant to the Magnuson-Stevens Fishery Conservation Management Act. DEP’T OF DEFENSE, JACKSONVILLE DIST. CORPS. OF ENGINEERS-ANTILLES OFFICE, PERMIT APPLICATION NO. SAJ-2010-02881, PUBLIC NOTICE (Nov. 19, 2010) (App. at 955–56). We encourage the Corps to conduct the EFH consultation in conjunction with their ESA duties. NAT’L MARINE FISHERIES SERV., OFFICE OF HABITAT CONSERVATION, ESSENTIAL FISH HABITAT CONSULTATION GUIDANCE 13 (2004).

¹⁴⁰ Order Amending Authorization Under Section 3 of the Natural Gas Act, 127 FERC ¶ 61,044 (April 16, 2009) (App. at 300–01).

¹⁴¹ *Excelerate Awarded Puerto Rico FSRU Contract*, ICIS HEREN (Mar. 7, 2011, 15:32:05) <http://www.icis.com/heren/articles/2011/03/07/9441498/lng/lmd/excelerate-awarded-puerto-rico-fsru-contract.html>. According to Francisco E. Lopez, a general manager for the Applicant, Excelerate has been handed a contract to provide the Applicant with a FSRU, which will provide an entry point for LNG on the southern end of the island to

impact multiple federally listed coastal, marine, and/or anadromous species. For example, the proposed project would be constructed near the coast in the municipalities of Toa Baja and Catano in northern Puerto Rico.¹⁴² The endangered Hawksbill Sea Turtle is listed as inhabiting the coastal areas of Toa Baja.¹⁴³ The endangered Green Sea Turtle and the Hawksbill Sea Turtle reside in the coastal zones of Catano.¹⁴⁴ The entire coastline of Puerto Rico is designated as critical habitat for endangered Elkhorn and Staghorn Coral,¹⁴⁵ and some of the smaller islands of Puerto Rico and other nearby islands are designated as critical habitat for endangered Hawksbill, Green, and Leatherback Sea Turtles.¹⁴⁶ Increased water pollution, shipping traffic, noise, lights, explosion risks, and other impacts associated with the construction and operation of the proposed project could be detrimental to these species as well as other marine mammals, sea turtles, corals, fish.

For all these reasons, the Corps must submit an initial inquiry to NMFS in order to determine what species “may be present” in the action area.¹⁴⁷ NMFS has already suggested this course of action by opining that further consultation may be required for marine species.¹⁴⁸

C. The Corps Must Prepare a Biological Assessment Encompassing Both the Terrestrial and Marine Species in the Action Area.

The initial inquiry begins the informal consultation process, and the next step is the preparation of a BA by the action agency for submission to FWS and NMFS for review and approval.¹⁴⁹ During this process, the action agency is required to confirm whether and to what extent listed species are present in the action area and whether the proposed project “may adversely affect” such species.¹⁵⁰ The BA must address both listed species and candidate species.¹⁵¹ In the BA,

coincide with the Via Verde project. Furthermore, “[the Applicant] plans to issue a second tender for an FSRU on the island’s northern coast.” *Id.*

¹⁴² JOINT PERMIT APPLICATION, *supra* note 1, App. at 795–801.

¹⁴³ U.S. FISH & WILDLIFE SERV., CARIBBEAN ENDANGERED SPECIES MAP 83 (2007).

¹⁴⁴ *Id.* at 22.

¹⁴⁵ *Elkhorn Coral*, NOAA FISHERIES-OFFICE OF PROTECTED RESOURCES, <http://www.nmfs.noaa.gov/pr/species/invertebrates/elkhorncoral.htm> (last visited Apr. 14, 2011); *Staghorn Coral*, NOAA FISHERIES-OFFICE OF PROTECTED RESOURCES, <http://www.nmfs.noaa.gov/pr/species/invertebrates/staghorncoral.htm> (last visited Apr. 14, 2011).

¹⁴⁶ *See Hawksbill Sea Turtle*, NOAA FISHERIES-OFFICE OF PROTECTED RESOURCES, <http://www.nmfs.noaa.gov/pr/species/turtles/hawksbill.htm> (last visited Apr. 14, 2011) (showing Mona Island, PR as critical habitat for endangered Hawksbill sea turtles); *Green Sea Turtle*, NOAA FISHERIES-OFFICE OF PROTECTED RESOURCES, <http://www.nmfs.noaa.gov/pr/pdfs/criticalhabitat/greenturtle.pdf> (last visited Apr. 14, 2011) (showing Culebra Island, PR as critical habitat for endangered Green sea turtles); *Leatherback Sea Turtle*, NOAA FISHERIES-OFFICE OF PROTECTED RESOURCES, <http://www.nmfs.noaa.gov/pr/pdfs/criticalhabitat/leatherbackturtle.pdf> (last visited Apr. 14, 2011) (showing St. Croix Island, USVI, near Puerto Rico as critical habitat for endangered Leatherback sea turtles).

¹⁴⁷ 50 C.F.R. § 402.12 (2010).

¹⁴⁸ E-mail from Lisamaire Carrubba, Protected Resources Div., Nat’l Marine Fisheries Serv.-Caribbean Office, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office (Nov. 19, 2010, 4:17:58 p.m.) (App. at 948) (stating that consultation under Section 7 may be required, and that EFH consultation “will likely be required”).

¹⁴⁹ CONSULTATION HANDBOOK, *supra* note 121, at 63.

¹⁵⁰ *Id.* at 61, 67.

the action agency must determine an “Environmental Baseline” for the present listed species and then determine the project’s effects on such species.¹⁵² In determining the effects, the BA must analyze the project’s direct and indirect¹⁵³ effects, including the project’s impacts on sensitive periods of a species’ life cycle, the duration of the proposed action; the disturbance frequency, intensity, severity, and other effects.¹⁵⁴ The effects analysis must account for all interrelated and interdependent activities that “but for” the Via Verde project would not occur.¹⁵⁵ This analysis requires the Applicant to disclose the full scope of the Via Verde project. The BA should include site-specific inspections conducted by relevant species’ experts using properly approved protocols and methodologies, review of relevant literature, and an analysis of the potential effect of the action on listed species.¹⁵⁶ The BA must also address how the project will affect the behaviors of listed species and propose site-specific measures to avoid or minimize possible adverse affects.¹⁵⁷ The action agency must either prepare a BA itself or direct the applicant to do so,¹⁵⁸ although the Corps is ultimately responsible for the content of the BA as well as the “may adversely affect” finding.¹⁵⁹

The Via Verde project requires a BA because numerous listed species may be present in the action area, as discussed above. Moreover, FWS has concluded that the Via Verde project constitutes a “major construction activity”¹⁶⁰ and, as such, requires a BA.¹⁶¹ According to FWS, the construction of a “pipeline” is a “major construction activity.”¹⁶² Here, the Corps appears to be relying on the Applicant to conduct the species surveys necessary for the preparation of a BA. The surveys are utilized for the BA to determine the presence and abundance of species and whether the project “may affect” listed species.¹⁶³ FWS has requested additional surveys from

¹⁵¹ *Id.* at 72.

¹⁵² 50 C.F.R. § 402.02 (2010). The environmental baseline includes the past and present impacts of all Federal, State, or private actions and other human activities in the action area, the anticipated impacts of all proposed Federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of State or private actions which are contemporaneous with the consultation in process. *Id.*

¹⁵³ See *Andrews*, 758 F.2d at 512 (requiring the Corps to determine the effects increased water consumption from a dam would cause on critical whooping crane habitat. The court reasoned that an agency could not wear “blindness” and ignore indirect but casually related effects of certain actions).

¹⁵⁴ CONSULTATION HANDBOOK, *supra* note 122, at 107–08.

¹⁵⁵ 51 Fed. Reg. 19126, 19932 (June 3, 1986); *Sierra Club v. Marsh*, 816 F.2d 1376, 1387 (9th Cir. 1987); CONSULTATION HANDBOOK, *supra* note 121, at 4–6. For example, the Applicant must evaluate the potential impacts of increased vessel traffic on endangered species as well as the impacts of FSRU’s on trust species. The Applicant must also address EcoEléctrica plant modifications, additional pipelines to connect the plants to Via Verde, maintenance roads and activities, or additional facilities in this analysis.

¹⁵⁶ 50 C.F.R. § 402.12(f) (2010).

¹⁵⁷ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1109).

¹⁵⁸ 50 C.F.R. § 402.12 (2010).

¹⁵⁹ CONSULTATION HANDBOOK, *supra* note 121, at 72.

¹⁶⁰ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1107).

¹⁶¹ See *Nat’l Wildlife Fed’n v. Nat’l Park Serv.*, 669 F. Supp. 384, 390 (D. Wyo. 1987); CONSULTATION HANDBOOK, *supra* note 121, at 48.

¹⁶² CONSULTATION HANDBOOK, *supra* note 121, at 71.

¹⁶³ See Interagency Cooperation–Endangered Species Act of 1973, 51 Fed. Reg. 19926, 19949 (June 3, 1986) (codified at 50 C.F.R. pt. 402) (stating that the term “may affect” has been broadly interpreted to mean “any possible

the Applicant for the Via Verde project because the surveys conducted for the Puerto Rico EIS were deficient.¹⁶⁴ FWS has stated that “the purpose of [the] requested surveys . . . [is] for the development of the [BA].”¹⁶⁵ Moreover, FWS has provided extensive technical assistance to the Applicant in developing acceptable survey methodologies for various listed species, and it has noted deficiencies in various aspects of survey designs.¹⁶⁶ The Applicant has been communicating with FWS regarding survey protocols and methodology for endangered plants, raptors, and nightjars.¹⁶⁷ However, the Applicant has not submitted survey protocols or methodology for FWS review for the endangered Puerto Rican boas, Puerto Rican crested toads, coqui ilanero in Toa Baja, or the critically endangered Puerto Rican parrot despite FWS requests that it do so.¹⁶⁸ Also, the FWS has advised the Corps that it “needs to make an effect determination with regards to the endangered Antillean Manatee [an FWS protected species] for the EcoEléctrica modifications, because the Environmental Baseline has changed since the original modification authorization.”¹⁶⁹ FWS has pointed out many deficiencies in the surveys the Applicant is conducting.

Regarding the plant surveys, FWS’s most recent comments note the lingering deficiencies in the protocols.¹⁷⁰ In these comments, FWS recommends using four parallel transects instead of three, and using four surveyors instead of three to increase the likelihood of spotting listed plants in the dense vegetation of the evaluation area.¹⁷¹ Additionally, FWS notes the Applicant failed to explain the length of the transects, despite continuous recommendations to surveying the whole length of the interest area due to the patchy distribution of rare plants.¹⁷² Although FWS agrees with the Applicant’s retention of Dr. Axelrod, who is a qualified plant expert, to head the surveys, FWS advises the Applicant to obtain another qualified local expert to increase the chances of finding rare plants.¹⁷³ Furthermore, FWS cannot effectively evaluate the proposed protocol without knowing the complete scope of the project.¹⁷⁴ For example, the Applicant

effect, whether beneficial, benign, adverse, or of an undetermined character,” can trigger the consultation requirement).

¹⁶⁴ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1109).

¹⁶⁵ E-mail from Marelisa Rivera, Assistant Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Jan. 14, 2011, 04:00 PM) (App. at 1187).

¹⁶⁶ See *supra* Section III-C of these comments (discussing survey protocols and deficiencies).

¹⁶⁷ *Id.*

¹⁶⁸ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1108–1112).

¹⁶⁹ *Id.* App. at 1109; 50 C.F.R. § 402.16(a)–(b) (2010).

¹⁷⁰ E-mail from Omar Monsegur, Botanist, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Feb. 07, 2011) (App. at 1377–1382). See also E-mail from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Marelisa Rivera, Assistant Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Jan. 31, 2011, 15:34:14 p.m.) (App. at 1374) (“According to [the Applicant’s] letter we received today from the Corps, it is stated that surveys for plants have been taking place. If that is the case why should we evaluate and approve this protocol after the fact?”).

¹⁷¹ E-mail from Omar Monsegur, Botanist, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Feb. 07, 2011) (App. at 1377).

¹⁷² *Id.* App. at 1377–78.

¹⁷³ *Id.* App. at 1378.

¹⁷⁴ *Id.*

states that Mogotes (limestone karst hill formations) from Manati to Vega Alta will be avoided by re-routing the pipeline or using a push/pull bore method to tunnel under the landscape,¹⁷⁵ but provides no documentation indicating whether or not Motoges will be impacted by the Applicant's ROW clearing, drilling methods, and/or construction of access roads and staging areas. Moreover, due to the presence of the endangered palo de rose in the Mogotes area, the Applicant should survey the entire Mogote area for presence of this species as well as additional species.¹⁷⁶ The Applicant must conduct plant surveys with the latest pipeline alignment so that evaluation of the precise impacted area is conducted. For example, in Penuelas the surveys were conducted outside the center line of the project, and do not correspond with the area FWS suggested the Applicant survey.¹⁷⁷ Finally, despite FWS's continued recommendations, the Applicant has yet to provide a survey protocol for the Adjuntas area, which is several kilometers west of the only known population of nogel and may be a depository of the species.¹⁷⁸ Until the Applicant corrects these deficiencies in the plant surveys, the Corps cannot consider its BA complete nor rely on it for purposes of making a preliminary "may adversely affect" determination, subject to FWS and NMFS approval. Moreover, the Corps should ensure that the Applicant includes all FWS recommendations in the survey protocols and the BA.

In addition to the issues involving endangered plant surveys, the Applicant's animal surveys are also insufficient. For example, the most recent nightjar survey protocol provided by the Applicant is inadequate in several ways. First, FWS recommends that transects 1 and 3 should start 150 meters from the forest edge to avoid human, road, or trail effects on the surveys.¹⁷⁹ Second, the Applicant did not note, as recommended by the FWS, that the *Leucaena* patches provide roosting habitat not nesting habitat.¹⁸⁰ Third, the Applicant has failed to provide a detailed map with GPS coordinates. Fourth, the project still impacts the area designated as a mitigation area for the Gasoducto del Sur, an area identified by species experts as the "best habitat to be protected in the Guayanilla-Penuelas area" for the nightjar.¹⁸¹ FWS has recommended that the project be re-routed, and that the Applicant investigate impacts on the entire area, not just the area to be acquired for mitigation.¹⁸² To date, however, the Applicant has failed to address FWS's repeated concerns regarding this mitigation area. Furthermore, we have not seen a revised survey protocol incorporating the above mentioned deficiencies.

¹⁷⁵ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Feb. 24, 2011) (App. at 1398).

¹⁷⁶ E-mail from Omar Monsegur, Botanist, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Feb. 07, 2011) (App. at 1378).

¹⁷⁷ *Id.*

¹⁷⁸ *Id.* Also, the Applicant has failed to provide a detailed work schedule, despite constant urging, so that FWS can provide on-site assistance. *Id.*

¹⁷⁹ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Feb. 16, 2011) (App. at 1389-90).

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* Also, FWS raises the same objection with regards to animal surveys as it did with plant surveys, the Applicant must submit a field work schedule so that FWS can participate in the surveys. *Id.*

In addition to the nightjar surveys, FWS has also asked the Applicant to conduct a survey for the critically endangered Puerto Rican parrot¹⁸³ in the Rio Abajo Forest, but to date, the Applicant has not begun conducting such a survey.¹⁸⁴ In response to FWS's requests, the Applicant has noted the project will not impact this area because the pipeline will utilize the PR-10 easement.¹⁸⁵ However, this answer is vague and conclusory and does not sufficiently address FWS's concerns. For instance, will the ROW width be modified at all, or will construction require additional ROW width for staging areas? Moreover, will the construction activities within the ROW have any impact on the species in terms of human presence or noise, or allow access for invasive or pest species such as feral cats? The Corps should ensure the Applicant conducts all the surveys recommended by FWS and follows all technical assistance FWS provides.

The Corps should ensure strict compliance with FWS technical assistance because the Applicant has a history of conducting inadequate species surveys. For example, for the Gasoducto Del Sur project, the same Applicant determined no species were present in the action area; however, after conforming their studies to the FWS's specifications and allowing FWS personnel to accompany surveyors, three species of listed plants—including over 300 individuals of one species—and 55 male nightjars were found.¹⁸⁶ Here, the Applicant continues to provide survey methodology to FWS for scrutiny, but has failed provide work schedules so that FWS personnel may participate during the survey process.¹⁸⁷ Because the Corps is ultimately responsible for the content of the BA, it should ensure that the Applicant works cooperatively with the FWS, incorporates its comments and protocol modifications, and allows FWS personnel to participate in surveys. The Corps should not provide a BA to FWS until the Applicant adequately addresses all concerns raised by FWS and conforms its methodology to FWS specifications. For comparison, the Applicant worked with FWS for a period of two years to minimize the possible effects on listed species for the previous Gasoducto del Sur project.¹⁸⁸ Here, the Applicant is attempting to evaluate species impacts in a matter of months for a project that is nearly double in size and transects pristine species habitat.

In sum, the Via Verde project requires a BA, and currently the Corps cannot submit an adequate BA to FWS or NMFS for review and approval. The Corps would need a great deal more information and analysis in order to prepare a sufficient BA.

¹⁸³ See U.S. FISH & WILDLIFE SERV., RECOVERY PLAN FOR THE PUERTO RICAN PARROT iii (2009) *available at* <http://endangered.fws.gov/recovery/index.html#plans> (stating that this endemic species is considered one of the ten most endangered birds in the world. Out of a total of around 50 individuals, 22-28 individuals reside in the Rio Abajo Forest).

¹⁸⁴ E-mail from Marelisa Rivera, Assistant Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan, Biologist, Tetra Tech Ecological Serv. (Jan. 12, 2011, 04:55 PM) (App. at 1173-76).

¹⁸⁵ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Feb. 24, 2011) (App. at 1397).

¹⁸⁶ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps of Engineers-Antilles Office (Oct. 18, 2010) (App. at 893).

¹⁸⁷ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Daniel Pagan Rose, Asesores Ambientales y Educativos Inc. (Feb. 16, 2011) (App. at 1389).

¹⁸⁸ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Dec. 15, 2010) (App. at 1105).

D. Because the Proposed Project Is Likely to “Adversely Affect” Multiple Endangered and Threatened Species, the Corps Must Engage in Formal Consultation with Both FWS and NMFS.

If the BA concludes the proposed project “may adversely affect” listed species or their critical habitat, then formal consultation between the action agency and FWS and/or NMFS is required. The term “may . . . affect” has been interpreted to mean “any affect.”¹⁸⁹ The action agency makes a preliminary “may affect” determination, subject to FWS and NMFS review and approval.¹⁹⁰

Due to the extensive direct and indirect effects of the proposed Via Verde pipeline project on many acres of pristine habitat, protected areas, and numerous listed species, as well as the likelihood of many interrelated and interdependent activities associated with this project, the Via Verde project is “likely to adversely affect” listed species in a manner that is not “discountable, insignificant, or beneficial.”¹⁹¹ In addition, FWS has noted that transplanting listed species from an action area, especially plant species, is not an effective means of avoiding impacts on the species.¹⁹² Instead, the project ROW should be rerouted to avoid impacting present species.¹⁹³ If an applicant intends to implement this approach, the effect of transplantation on protected plants necessitates a “may adversely affect” determination.¹⁹⁴

Since there are likely to be substantial impacts on listed species and their habitat, a BiOp will be required for both terrestrial and marine species.¹⁹⁵ For comparison, on July 30, 2010, FWS completed a BiOp for a natural gas project involving the replacement of three pipeline segments in the San Francisco River, which is inhabited by the threatened loach minnow. The excavation area for that project was 2.75 total acres, the temporary total project area was 10.15 acres, and the estimate of permanent wetlands effects was 0.30 acres. Furthermore, the project required only 58 days to complete.¹⁹⁶ The Via Verde project involves a vastly greater number of listed species, acres of affected wetlands, number of protected areas, unique and sensitive resources, as well as a much more extensive construction project and long-term change in the landscape, including ongoing maintenance, increased shipping traffic, and other operations. Accordingly, there appears to be no doubt that a BiOp will be required for the Via Verde project. Indeed, the Corps has already acknowledged this likelihood in an April 4, 2011 news release stating that, once the Applicant submits a BA, it will initiate formal consultation with both FWS and

¹⁸⁹ CONSULTATION HANDBOOK, *supra* note 121, at xvi.

¹⁹⁰ 50 C.F.R. § 402.12(g) (2010).

¹⁹¹ 50 C.F.R. § 402.12 (2010); CONSULTATION HANDBOOK, *supra* note 121, at 3-13.

¹⁹² Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps Eng’s-Antilles Office (Oct. 18, 2010) (App. at 899).

¹⁹³ *Id.* App. at 899–900.

¹⁹⁴ *See id.* App. at 899 (describing the effects of transplantation on plant species and high rate of fatality).

¹⁹⁵ 16 U.S.C. § 1536(b) (2006); 50 C.F.R. § 402.14 (2010).

¹⁹⁶ Letter from Steven L. Spangle, Field Supervisor, U.S. Fish & Wildlife Serv.-Ariz. Office, to Ron Fowler, Project Supervisor, U.S. Army Corps of Engineers-Los Angeles Dist. (July 30, 2010) (App. at 596).

NMFS.¹⁹⁷ We agree with and support the Corps' willingness to proceed with formal consultation.

The purpose of formal consultation between an action agency, FWS, and NMFS is to determine whether the proposed project will "jeopardize the continued existence of any [listed] species."¹⁹⁸ The action agency is responsible for providing FWS and NMFS with the best available scientific and commercial data upon initiation of formal consultation.¹⁹⁹ The action agency must also provide a list of cumulative effects, including effects of future State, tribal, local, and private actions, not involving Federal action, that are reasonably certain to occur within the action area under consideration.²⁰⁰ Courts will critically review the cumulative effect analysis in a BiOp to ensure adequate examination of the impacts of reasonably foreseeable private projects on listed species.²⁰¹ Courts have set aside BiOps that failed to conduct a detailed and "comprehensive" discussion of a project's effects because they failed to analyze the total impacts on a species.²⁰² Furthermore, formal consultation must be initiated and completed for the entire project as a whole, not just a segment of it.²⁰³ Pursuant to the ESA, an applicant cannot subvert ESA requirements by segmenting the project and initiating consultation for incremental steps.²⁰⁴ Therefore, before commencing formal consultation, the Corps should ensure that the Applicant clearly defines and describes the entire scope of the project, including the Applicant's plans for acquiring the additional natural gas that appears to be necessary to supply the plants on the north coast and all impacts associated with the project as a whole, not a constrained view based on the project footprint or other inappropriate limitations.

When the formal consultation process does commence, we encourage the Corps, FWS, and NMFS to ensure strict compliance with ESA obligations, implementing regulations, and The Consultation Handbook.²⁰⁵ In the meantime, we encourage the agencies to continue monitoring the proposed project and working to ensure that the Applicant submits all information necessary to review the project within the parameters set forth by statute and regulation.

¹⁹⁷ U.S. ARMY CORPS OF ENGINEERS, JACKSONVILLE DIST, U.S. ARMY CORPS OF ENGINEERS CONTINUES THOROUGH REVIEW OF VIA VERDE NATURAL GAS PIPELINE PERMIT APPLICATION (Apr. 4, 2011) (App. at 1417).

¹⁹⁸ 16 U.S.C. § 1536(a)(2) (2006).

¹⁹⁹ 50 C.F.R. § 402.14(d) (2010).

²⁰⁰ 50 C.F.R. § 402.14(g)(3)-(4) (2010).

²⁰¹ *Nat'l Wildlife Fed'n v. Norton*, 332 F. Supp. 2d 179, 185 (D.D.C. 2004).

²⁰² *Defenders of Wildlife v. Babbitt*, 130 F. Supp. 2d 121, 130 (D.D.C. 2001) (citing *Greenpeace v. NMFS*, 80 F. Supp. 2d 1137, 1149 (D. Wash. 2000)). See also *Pac. Coast Fisherman's Associations v. Nat'l Marine Fisheries Serv.*, 265 F.3d 1028, 1035-38 (9th Cir. 2001) (finding that the biological opinion was inadequate because it failed to consider and explain cumulative impacts and short-term impacts of the actions).

²⁰³ 50 C.F.R. § 402.12(k) (2010).

²⁰⁴ *Id.*

²⁰⁵ 16 U.S.C. § 1536(a)(1)-(a)(2) (2006); 50 C.F.R. § 402 (2010); CONSULTATION HANDBOOK, *supra* note 121.

E. The Corps Cannot Authorize Any Action That Constitutes an “Irreversible and Irretrievable Commitment of Resources” During the Consultation Process.

Section 7(d) prohibits both the Corps and the Applicant from making any “irreversible and irretrievable commitment of resources” during consultation that forecloses the formulation and implementation of reasonably prudent alternatives (“RPAs”).²⁰⁶ Moreover, ESA regulations mandate that if a project is a “major construction activity” it automatically requires a BA, and the BA must be completed prior to issuance of any contracts or start of construction.²⁰⁷ In this case, FWS has concluded that the Via Verde project “constitutes” a “major construction activity” because it affects “1672 acres of land, including 369 acres of wetlands, several Commonwealth Forests or Reserves, forested mountain and karst areas, and known habitat of more than 30 federally listed . . . species. Only when the project enters the San Juan metropolitan area do the environmental impacts drop significantly.”²⁰⁸

We agree with the Corps’ stern warning to the Applicant that unpermitted work could be subject to enforcement action under the CWA, but the Corps must also ensure the ESA’s prohibition against an “irreversible and irretrievable commitment of resources” is not violated.²⁰⁹ FWS specifically instructed the Applicant that “[a] BA shall be completed before any contract for construction is let and before construction is begun.”²¹⁰ Disregarding these requirements, the Applicant issued a Request for Proposal (“RFP”) for Major Material Acquisition with a March 18, 2011 execution date.²¹¹ The contract would be between the Applicant and a chosen third party for all services required to supply natural gas pipe and pipe bends for the Via Verde project.²¹² Moreover, the RFP indicates the Applicant has already contracted with a Construction Manager.²¹³ Furthermore, according to Rep. Luis V. Gutierrez, a construction contract for 10 million dollars has been granted for the project.²¹⁴ Finally, the Applicant may be contracting for two FSRUs that are related to the Via Verde project.²¹⁵

²⁰⁶ 16 U.S.C. § 1536(d) (2006).

²⁰⁷ 50 C.F.R. § 402.12(b)(1)–(2) (2010); CONSULTATION HANDBOOK, *supra* note 121, at 47.

²⁰⁸ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Dec. 15, 2010) (App. at 1107).

²⁰⁹ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Head, Env’tl. Protection & Quality Assurance Div, P.R. Power Auth. (Mar. 18, 2011) (App. at 1410).

²¹⁰ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps Eng’s-Jacksonville Dist. (Dec. 15, 2010) (App. at 1109) (citing 50 C.F.R. § 402.12(b)(2)).

²¹¹ P.R. ELECTRIC POWER AUTH., REQUEST FOR PROPOSAL-MAJOR MATERIALS ACQUISITION VIA VERDE NATURAL GAS PIPELINE I (Jan. 31, 2011) (App. at 1260).

²¹² *Id.*

²¹³ *Id.* App. at 1257. *See also* P.R. ELECTRIC POWER AUTH., REQUEST FOR QUALIFICATIONS (Oct. 29, 2010) (App. at 913–14) (requesting applications for construction services).

²¹⁴ Luis V. Gutierrez, Representative, U.S., Address to Congress Regarding the Via Verde Project (Apr. 14, 2011) (*available at* http://www.gutierrez.house.gov/index.php?option=com_content&view=article&id=660:rep-gutierrez-remarks-on-puerto-rico-natural-gas-pipeline-project&catid=50:2011-press-releases).

²¹⁵ *Excelebrate Awarded Puerto Rico FSRU Contract*, ICIS HEREN (Mar. 07, 2011, 15:32:05) <http://www.icis.com/heren/articles/2011/03/07/9441498/lng/lmd/excelebrate-awarded-puerto-rico-fsru-contract.html>. The Applicant has already opined that such units did not constitute a feasible alternative for NEPA alternative

The Corps should investigate the contracts entered into by the Applicant to ensure that the Applicant is not violating the prohibition against contracting or construction activities prior to the completion of the BA. Furthermore, the Corps should ensure adequate transparency from the Applicant and take any action necessary to ensure compliance with the ESA and its associated regulations, including the prohibition against an irreversible and irretrievable commitment of resources.

F. The Corps Must Ultimately Ensure That the Proposed Project Avoids Jeopardy By Incorporating Terms and Conditions Required by FWS and/or NMFS Through “Reasonably Prudent Alternatives” and/or “Incidental Take Statements” into the Permit; or, If Necessary, By Denying the Permit.

The ESA mandates that, shortly after the conclusion of formal consultation, the consulting agency must provide a written statement on whether the proposed project will jeopardize the continued existence of listed species or adversely modify their critical habitat.²¹⁶ The regulations prohibit any agency action “that reasonably would be expected, directly or indirectly, to reduce appreciably the likelihood of both the survival *and* recovery of a listed species in the wild.”²¹⁷ If the BiOp makes a jeopardy finding, FWS and NMFS must set forth Reasonable and Prudent Alternatives that will avoid that consequence.²¹⁸ The Ninth Circuit has determined that choosing an RPA that does not explain how the measure will protect species and their habitat does not comply with the ESA mandates.²¹⁹

If the BiOp makes a jeopardy finding or includes RPAs to avoid jeopardy, FWS and NMFS must also include an Incidental Take Statement.²²⁰ The ITS must include the impact of the incidental taking,²²¹ reasonable and prudent measures necessary or appropriate to minimize the impact, and set forth the terms and conditions that must be complied with in implementing the reasonable and prudent measures identified in the statement.²²² If the ITS concerns marine mammals, the

analysis requirements because they will significantly impact sensitive marine environments such as coral reefs. Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan 28, 2011) (App. at 1236-38).

²¹⁶ 16 U.S.C. § 1536(b)(3)(A) (2006); 50 C.F.R. § 402.14(g)(1)-(8) (2010).

²¹⁷ 50 C.F.R. § 402.02 (2010) (emphasis added). *See also Nat'l Wildlife Fed'n v. Nat'l Marine Fisheries Serv.*, 524 F.3d 917, 931-33 (9th Cir. 2008) (holding a BiOp legally deficient because it failed to consider both the impact on survival and on recovery).

²¹⁸ 50 C.F.R. § 402.14(g) (2010). An RPA is an alternative that is consistent with the purpose of the proposed action, within the scope of the agency's jurisdiction and authority, economically and technologically feasible, and is believed would avoid jeopardizing the continued existence of listed species or adverse modification of critical habitat. 50 C.F.R. § 402.02 (2010). In addition to RPAs, the consulting agency could provide “conservation recommendations” to assistance in avoiding or reducing impact of the project. 50 C.F.R. § 402.14(j) (2010).

²¹⁹ *Pac. Coast Fed'n of Fisherman's Associations v. U.S. Bureau of Reclamation*, 426 F.3d 1082, 1094 (9th Cir. 2005).

²²⁰ 50 C.F.R. § 402.02(14)(i) (2010).

²²¹ The “impact” should be provided in terms of a numerical cap on authorized take. *Oregon Natural Resources Council v. Allen* 476 F.3d 1031, 1037-38 (9th Cir. 2007).

²²² 16 U.S.C. § 1536(b)(4)(c)(i)-(iv) (2006); 50 C.F.R. § 402.14(i)(1) (2010). *See also Pac. Shores Subdivision Ca. Waste Dist. v. U.S. Army Corps of Engineers*, 538 F. Supp. 2d 242, 259 (D.D.C. 2008) (invalidating a BiOp as

specified measures must comply with Section 101(a)(5) of the Marine Mammal Protection Act.²²³

Due to the vast impacts the Via Verde project could have on listed species and their habitat, FWS and NMFS could impose reporting requirements on the Corps or the Applicant in order to monitor the impacts of the take.²²⁴ Also, if the amount or extent of authorized take is exceeded, the Corps must immediately reinitiate consultation.²²⁵ If FWS and NMFS make a jeopardy finding and issue a BiOp containing RPAs and an ITS, the Corps and Applicant must: (1) choose an RPA; (2) reject the permit or abandon the application; (3) reinitiate consultation by modifying the project or proffering an RPA not yet considered; or (4) choose an action that complies with Section 7(a)(2) of the ESA.²²⁶ The Corps must notify FWS and NMFS of its final permitting decision on a proposed activity that has received a jeopardy or adverse modification BiOp.²²⁷

IV. THE CORPS MUST PREPARE A FULL ENVIRONMENTAL IMPACT STATEMENT FOR THE VIA VERDE PROJECT UNDER NEPA.

The purpose of NEPA is to ensure that both public officials and citizens are informed of the impacts associated with the Via Verde project before decisions are made and actions are taken.²²⁸ The Corps should prepare a full EIS because, as detailed in these comments, the Via Verde project is a major federal action significantly affecting the quality of the human environment. The Applicant has not demonstrated that mitigation measures will reduce all impacts below the significance threshold. The Corps cannot merely tier to the Puerto Rico EIS because it is deficient procedurally and substantively. We encourage the Corps to adopt the position of FWS that the proposed Via Verde project warrants a full EIS.²²⁹ Furthermore, since it is already overwhelmingly clear that this project will have significant effects, it would be most efficient for the Corps to proceed directly to the preparation of an EIS without first preparing an Environmental Assessment (“EA”).²³⁰

arbitrary and capricious that failed include terms and conditions governing the implementation of reasonable and prudent alternatives).

²²³ 16 U.S.C. § 1536(b)(4)(c)(i)–(iv) (2006); 50 C.F.R. § 402.14(i)(1) (2010).

²²⁴ 50 C.F.R. § 402.14(i)(2) (2010).

²²⁵ 50 C.F.R. § 402.14(1)(4) (2010).

²²⁶ CONSULTATION HANDBOOK, *supra* note 121, at 51–52. *See also Bennett v. Spear*, 520 U.S. 154, 169 (1997) (“[A]ny person’ who knowingly ‘takes’ an endangered or threatened species is subject to substantial civil and criminal penalties, including imprisonment.”)

²²⁷ 50 C.F.R. § 402.15(b) (2010).

²²⁸ 40 C.F.R. § 1500.1(b) (2010).

²²⁹ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Angel Rivera Santa, Dir., Planning & Env'tl. Protection P.R. Electric Power Auth., (Jan. 20, 2011) (App. at 1198) (“We continue to believe that the project as currently proposed constitutes a major construction activity with significant potential adverse effects to the human environment. Therefore, we continue recommending the development of a federal [EIS] as required under NEPA.”).

²³⁰ 33 C.F.R. Pt. 325, App. B § 7 (2010). *See also Southwest Gulf Railroad Company—Construction and Operation Exemption—Medina County, TX*, 69 Fed. Reg. 25657 (May 7, 2004) (The Surface Transportation Board received a petition for the construction of a 7 mile wholly intrastate rail line to connect a quarry to the Union Pacific rail line. The Surface Transportation Board required the preparation of an EIS because the proposed project was likely to be highly controversial).

A. The Proposed Project Is a “Major Federal Action.”

The Via Verde project is a major federal action because it is subject to federal control and responsibility.²³¹ The proposed project will traverse the island of Puerto Rico through 235 rivers and wetlands, covering 369 acres of jurisdictional waters of the United States,²³² impacts to which require approval under a 404 permit from the Corps.²³³ Because the Via Verde project cannot be constructed without a 404 permit and other federal direction or approval from FWS, NMFS, and the Federal Highway Administration, the federal government exercises the requisite level of control over the project to make it a major federal action.²³⁴

B. The Proposed Project “Significantly Affects the Quality of the Human Environment.”

An EIS must be prepared when a proposed project significantly affects the quality of the human environment.²³⁵ A project triggers the need for an EIS when there are substantial questions raised as to whether a project may cause significant degradation to the human environment.²³⁶ The human environment must be viewed comprehensively to include “the natural and physical environment and the relationship of people with that environment.”²³⁷ The significance of the impacts is determined by examining their context and intensity.²³⁸

The Via Verde project involves the construction of a pipeline that would traverse the entire main island of Puerto Rico from south to north, then travel west to east across the island through highly sensitive ecosystems and protected areas. The Corps must evaluate the significance of the

²³¹ See 40 C.F.R. § 1508.18(a) (2010) (stating major federal actions with effects are those actions that may be major and are potentially subject to federal control and responsibility including activities and projects entirely or partly financed, assisted, conducted, regulated, or approved by federal agencies). Additionally, the Applicant is financing the project through Build America Bonds, under the American Recovery and Reinvestment Act of 2009, ACT OF 2009, PL 111-5, February 17, 2009, 123 Stat 115, which allows state and local governments to issue taxable bonds for capital projects and to receive a new direct federal subsidy payment from the Treasury Department for a portion of their borrowing costs. See Business wire: “Fitch Rates Puerto Rico Electric Power Authorities Approximately \$500MM Series BBE ‘BBB+’; Outlook Stable,” <http://www.businesswire.com/news/home/20101220006548/en/Fitch-Rates-Puerto-Rico-Elec-Power-Auths>. Last viewed 4/5/2011 (last visited Apr. 17, 2011). Without this financing mechanism, the Applicant may not have been able to secure the necessary financing for the Via Verde project.

²³² U.S. DEPT. DEFENSE, JACKSONVILLE DIST. CORPS. ENG’S-ANTILLES OFFICE, PERMIT APPLIC. NO. SAJ-2010-02881, PUBLIC NOTICE (Nov. 19, 2010) (App. at 953).

²³³ See 33 U.S.C. § 1211(a) (2006) (stating the CWA prohibits the discharge of a pollutant into navigable waters of the US from a point source); 33 U.S.C. § 1344(a) (2006) (stating the Secretary may issue permits for the discharge of dredge or fill material into navigable waters).

²³⁴ 33 C.F.R. Pt. 325, App. B, 7b (2010); *Tillamook Co. v. U.S. Army Corps Engineers*, 288 F.3d 1140, 1142 (9th Cir. 2002). See also *White Tanks Concerned Citizens, Inc. v. Strock*, 563 F.3d 1033, 1039-1040 (2009).

²³⁵ 42 U.S.C. § 4332(2)(c) (2006).

²³⁶ *Ocean Advocates v. U.S. Army Corps of Engineers*, 402 F.3d 846, 864 (9th Cir. 2005).

²³⁷ 40 C.F.R. § 1508.14 (2010).

²³⁸ 40 C.F.R. § 1508.27 (2010); See also 32 C.F.R. § 651.39 (2010) (“Significance of impacts is determined by examining both the context and intensity of the proposed action.”)

project's impacts in several contexts – Puerto Rican society as a whole, the affected region, the affected interests, and the specific localities – and from both a short and long-term perspective.²³⁹

Within all of these contexts, the Corps must then consider several factors in order to determine the intensity of the impacts, including but not limited to: the degree to which the environmental impacts are highly controversial and uncertain; the effect on public health or safety; proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas; the impact on threatened or endangered species or their habitat; and whether the action is related to other actions with individually insignificant but cumulatively significant impacts.²⁴⁰ For purposes of whether or not the significance threshold is met, it does not matter if the impacts are beneficial or adverse.²⁴¹ A significant impact may exist even if the Corps finds that, on balance, the Via Verde project would be beneficial.²⁴²

The Applicant's assertion that various impacts associated with the Via Verde project are temporary is not relevant for the significance threshold finding.²⁴³ The CEQ regulations state, "[s]ignificance exists if it is reasonable to anticipate a cumulatively significant impact on the environment . . . [s]ignificance cannot be avoided by terming an action temporary or by breaking it down into small component parts."²⁴⁴ The issue of whether some of the impacts associated with the Via Verde project are temporary in nature is still in dispute, but even if this were certain, the temporary nature of these impacts would not render them insignificant for purposes of the Corps' significance determination under NEPA, and it would not eliminate the many other significant impacts. Based upon the information provided to date, the impacts associated with the Via Verde project far exceed the significance threshold. The following are just a few examples of the scope and intensity of the impacts:

- **The environmental impacts of the Via Verde project are highly controversial and uncertain.**²⁴⁵ The documents available to date indicate that federal agencies, the public,²⁴⁶ and the Applicant disagree as to the number and level of impacts associated with the Via Verde project. Federal agencies, such as NMFS, FWS, and USDA, assert the Via Verde

²³⁹ 40 C.F.R. § 1508.27 (2010) ("The significance of an action must be analyzed in several contexts such as society as a whole . . . the affected region, the affected interest, and the locality.").

²⁴⁰ *Id.*

²⁴¹ *Id.*

²⁴² *Id.*

²⁴³ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Feb. 24, 2011) (App. at 1397) ("In the case of wetlands, the impact is a temporary one, and will occur during installation of the pipeline."); Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan. 28, 2011) (App. at 1219) ("It is important to stress that all impacts to the wetlands and surface waters will be temporary in nature."); JOINT PERMIT APPLICATION, *supra* note 1, App. at 646.

²⁴⁴ 40 C.F.R. § 1508.27 (2010).

²⁴⁵ 40 C.F.R. § 1508.24(b)(4)-(5) (2010).

²⁴⁶ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1145-52).

project would have substantial adverse impacts to the environment.²⁴⁷ For instance, FWS has specifically recommended that a Coastal Zone Management Compatibility Certificate not be issued until the adverse impacts are adequately evaluated.²⁴⁸ In contrast, the Applicant indicates the Via Verde project would only have minimal impacts²⁴⁹ or that the impacts would be temporary and limited to the ROW.²⁵⁰ Specifically, the Applicant believes only 152 acres of wetlands would be temporarily impacted,²⁵¹ though the exact amount of wetlands and the full extent of the impacts on wetlands remain in dispute. In this case, an EIS is required to clarify and evaluate the amount and level of the impacts that would directly, indirectly, and cumulatively impact the human environment. The “preparation of an EIS is mandated where uncertainty may be resolved by further collection of data [and] where the collection of such data may prevent ‘speculation on potential . . . effects.’”²⁵² The Corps stated it “believes that project impacts have not been adequately quantified . . . [and] are concerned about the potential direct, indirect, and cumulative impacts of the project on the aquatic resources.”²⁵³ In light of the uncertainty surrounding the impacts associated with the Via Verde project, an EIS is critical in this case to assess and evaluate all potential impacts on the human environment. Additionally, the discrepancies between the information the Corps is receiving from the Applicant versus federal agencies and the public indicates the Via Verde project and its impacts are controversial.

- **The Via Verde project involves significant risks to human health and safety.**²⁵⁴ One of the risks associated with the Via Verde project is the risk of an explosion.²⁵⁵ The Applicant

²⁴⁷ See e.g. Letter from Miles M. Croom, Asst. Reg. Admin'r, Nat'l Marine Fisheries Serv. S.E. Regional Office, to Col. Alfred Pantano, Dist. Commander, U.S. Army Corps Eng's-Jacksonville Dist. (Dec. 19, 2010) (App. at 1126) (“[T]he project would have substantial adverse impacts on EFH.”); Letter from Ariel E. Lugo, Dir., Int'l Inst. of Tropical Forestry, U.S. Dept. Agric., to Sindulfo Castillo, Section Chief, U.S. Army Corps Eng's-Antilles Office (Dec. 3, 2010) (App. at 1092) (“[W]e have never seen [a permit] with such a broad scale of effects.”); E-mail from Aaron Valenta, Chief, Conservation Partnerships, U.S. Fish & Wildlife Serv. Boqueron Office, to Jerry Ziewitz, Conservation Planning Assistance Coordinator, U.S. Fish & Wildlife Serv. Boqueron Office (Jan. 13, 2011, 03:19 PM) (App. at 1186) (“[T]he proposed work will have substantial and unacceptable impacts on aquatic resources of national importance.”); Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Mr. Angel Rivera Santana, P.R. Electric Power Auth. (Jan. 20, 2011) (App. at 1198) (“We continue to believe that the project as currently proposed constitutes a major construction activity with potential significant adverse effects to the human environment.”).

²⁴⁸ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Max L. Vidal Vazquez, Dir. Interno, Subprograma Planes de Usos de Terrenos (Feb. 23, 2011) (App. at 1392).

²⁴⁹ U.S. DEPT. DEFENSE, JACKSONVILLE DIST. CORPS. ENGINEERS-ANTILLES OFFICE, PERMIT APPLIC. NO. SAJ-2010-02881, PUBLIC NOTICE (Nov. 19, 2010) (App. at 952–56); Letter from Miles M. Croom, Asst. Reg. Admin'r, Nat'l Marine Fisheries Serv. S.E. Regional Office, to Col. Alfred Pantano, Dist. Commander, U.S. Army Corps Eng's-Jacksonville Dist. (Dec. 19, 2010) (App. at 1126).

²⁵⁰ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1219, 1220).

²⁵¹ *Id.* App. at 1222.

²⁵² *Native Ecosystems Council v. U.S. Fish & Wildlife Serv.*, 428 F.3d 1233, 1240 (9th Cir. 2005).

²⁵³ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1146).

²⁵⁴ 40 C.F.R. § 1508.27(b)(2) (2010).

²⁵⁵ Letter from Donald W. Kinard, Chief, Regulatory Div., U.S. Army. Corps of Engineers-Antilles Office, to Lawrence Evans, Senior Env'tl. Expert, PC Peabody (Oct. 8, 2010) (App. at 887).

has indicated the pipeline would be located a minimum distance of 150 feet from residences.²⁵⁶ Though there are no regulations specifying a minimum distance, there have been several natural gas pipeline explosions in the past few years that have had impacts greatly exceeding the 150-foot buffer the Applicant proposes.²⁵⁷ Additionally, seismic activities may amplify the risk to human health and safety. Puerto Rico lies in an active plate boundary zone, and earthquakes are a "constant threat."²⁵⁸ As Congressman Luis Gutierrez noted on the floor of the U.S. House of Representatives, on April 13, 2011, the area experienced a 5.1 magnitude earthquake 118 miles from Puerto Rico, felt all over the island, and was one of 2500 earthquakes in the least three years.²⁵⁹ The risk of seismic activity disrupting the pipeline is of especially significant concern in the densely populated area of San Juan.

- **The Via Verde project poses significant threats to endangered and threatened species and their habitat.**²⁶⁰ As discussed in detail in Section III of these comments, the Via Verde project would pass through various habitats of threatened and endangered species.²⁶¹ Although, insufficient data has been collected on the various threatened and endangered species, FWS indicates 32 threatened and endangered species are likely to occur within the project area.²⁶² To date, six endangered faunal species have been positively identified as occurring within the ROW.²⁶³ Some surveys are currently being conducted to clarify the extent of threatened and endangered species present in the project area, but consultation with NMFS is required and surveys for additional terrestrial and marine species are likely needed.²⁶⁴ Furthermore, the proposed route runs adjacent to the coastal zones in Tao Baja and Catona and would likely impact these ecologically important areas.²⁶⁵ The Applicant has not effectively evaluated these potential impacts.²⁶⁶

²⁵⁶ P.R. Electric Power Auth., *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 440); JOINT PERMIT APPLICATION, *supra* note 1, App. at 645.

²⁵⁷ *Gasoducto Impacto Potencial*, CASA PUEBLO <http://www.casapueblo.org> (last visited Apr. 18, 2011) (containing five images overlaying the explosion impact radii of previous pipeline explosions along the proposed Via Verde project route).

²⁵⁸ Uri ten Brink, Chief Scientist U.S. Geological Survey, *The Puerto Rico Trench: Implications for Plate Tectonics and Earthquake and Tsunami Hazards*, NAT'L OCEANIC ATMOSPHERIC ADMIN (DEC. 4, 2006), <http://oceanexplorer.noaa.gov/explorations/03trench/trench/trench.html> (last visited Apr. 17, 2011).

²⁵⁹ Luis V. Gutierrez, Representative, U.S., Address to Congress Regarding the Via Verde Project (Apr. 14, 2011) (available at http://www.gutierrez.house.gov/index.php?option=com_content&view=article&id=660:rep-gutierrez-remarks-on-puerto-rico-natural-gas-pipeline-project&catid=50:2011-press-releases); Earthquake Hazards Program website, United States Geological Survey, <http://earthquake.usgs.gov/earthquakes/recenteqsww/Quakes/pr11103000.php> (last visited April 15, 2011).

²⁶⁰ 40 C.F.R. § 1508.27(b)(a) (2010).

²⁶¹ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Elec. Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan. 28, 2011) (App. at 1216).

²⁶² Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Yousev Garcia, Dir. Asesores Ambientales y Educativos, Inc. (June 30, 2010) (App. at 587-90).

²⁶³ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Francisco E. Lopez, Head, Env'tl. Protection & Quality Assurance Div, P.R. Power Auth. (Nov. 10, 2010) (App. at 923-25).

²⁶⁴ See *supra* Section III-C of these comments.

²⁶⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 795-801 and see also Section III of these comments.

²⁶⁶ Letter from Andrew Goetz, President, BC Peabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Feb. 24, 2011) (App. at 1396-1402).

- **The Via Verde project would significantly affect historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.**²⁶⁷ The total number of historic and culturally important sites in proximity to the Via Verde project remains unclear. As of February 24, 2011, the State Office of Historic Preservation (“SHPO”) was still waiting on the results of a Stage 1 Archeological Reconnaissance survey.²⁶⁸ The SHPO has already identified one archaeological site and six historic sites located within a one-kilometer buffer that runs along the proposed route.²⁶⁹ One of these sites has four individually listed properties.²⁷⁰ The Via Verde project would be in close proximity to cultural and historic sites.²⁷¹ Furthermore, FWS has stated the “project area consists of about 1,113.8 acres of which 738.6 acres are wetlands . . . 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.”²⁷²

For all these reasons, there is no question that the Via Verde project will result in significant impacts to the human environment and thus requires the preparation of a full EIS.

C. The Applicant Has Not Demonstrated That Mitigation Measures Would Reduce All Impacts to Below the Significance Threshold.

It is not possible for the Corps or the Applicant to avoid preparing an EIS for the Via Verde project simply by referring to proposed mitigation measures. Evaluation of mitigation measures proposed by the Applicant and additional mitigation measures not already included in the proposed action or alternatives should be evaluated by the Corps in an EIS.²⁷³ Corps regulations direct that the nature and extent of mitigation conditions are necessarily linked with the agency’s public interest review,²⁷⁴ which evaluates the impacts, including cumulative impacts, of the proposed Via Verde project and its intended use on the public interest.²⁷⁵ Mitigation in this context occurs throughout the Corps review process and includes avoiding, minimizing, rectifying, reducing or compensating for resource losses.²⁷⁶ Corps regulations dictate that additional mitigation may be required to ensure compliance with the Guidelines and as a result of the public interest review process.²⁷⁷ As discussed in Section IV-B of these comments, the Via Verde project consists of highly controversial and uncertain impacts to various resources that

²⁶⁷ 40 C.F.R. § 1508.27(b)(3) (2010).

²⁶⁸ Letter from Carlos A. Rubio Cancela, Architect, State Historic Preservation Office, to Francisco E. Lopez Garcia, Head, Env’tl Prot. & Quality Assur. Div., P.R. Electric Power Auth. (Feb. 24, 2011) (App. at 1394–95).

²⁶⁹ *Id.*

²⁷⁰ *Id.*

²⁷¹ *Id.*

²⁷² Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Sindulfo Castillo, Chief, Regulatory Section, U.S. Army Corps Eng’s-Antilles Office (Oct. 18, 2010) (App. at 889).

²⁷³ 40 C.F.R. § 1502.14(f) (2010).

²⁷⁴ 33 C.F.R. Pt. 325, App. B (2010).

²⁷⁵ 33 C.F.R. § 320.4(a) (2010).

²⁷⁶ 33 C.F.R. § 320.4(r) (2010).

²⁷⁷ 33 C.F.R. § 320.4(r)(1)(ii)-(iii) (2010).

have yet to be fully defined in nature or scope. Based on the information provided to date, the Applicant has failed to fully demonstrate what mitigation would be undertaken and whether that mitigation would compensate for, render minor, or act as an adequate buffer against the significant environmental impacts associated with the Via Verde project.

The Applicant has not demonstrated that mitigation measures would eliminate all impacts or reduce them so substantially as to render them insignificant. The Applicant has merely listed a few mitigation measures, mainly associated with the impacts to aquatic resources. For example, the Applicant generally states: HDD would be used to avoid a discharge; pipeline construction would be designed to incorporate the use of vertical wall trenching whenever possible; excess fill or dredge material would be removed and preconstruction wetland elevations would be reestablished; wetland organic topsoil would be separated during trench excavation and stockpiled in a separate area to be re-used in restoration of the area where possible; all stream embankments where trenching occurs would be restored and covered with matting to prevent erosion; and mats would be used whenever possible to avoid the need for temporary fill.²⁷⁸ However, the Applicant makes no attempt to evaluate the nature or extent of the impacts that would need to be mitigated, or the degree or likelihood of success of its proposed mitigation measures in actually reducing impacts to aquatic resources.

The Applicant has also failed to evaluate or quantify any impacts associated with one of the primary mitigation measures it is relying on, HDD, itself. For example, the Applicant indicates that impacts to estuarine forests would be mitigated by implementing HDD technology.²⁷⁹ Yet the Applicant fails to evaluate the possibility of discharges from the staging areas the Applicant would use when preparing for drilling, conducting the drilling, and breaking down the drilling work area, nor does it take into account the potential discharge of bentonite mud from the drilling or discharges that may result from the spraying activities to reduce excessive dust in the work area. The Applicant does indicate it would complete and implement various plans such as a Frac-Out Plan, an Erosion and Control Plan, and a Storm Water Pollution Prevention plan to attempt to minimize the impacts associated with its chosen mitigation measure,²⁸⁰ but makes no attempt to evaluate the potential impacts associated with this drilling method, even with safety plan in place. This information is needed so the Corps can appropriately analyze and off-set any claimed credit in mitigation for use of HDD.

Further, the Applicant has failed to propose, evaluate, or quantify, using analytical data, mitigation measures to reduce the other direct, indirect, and cumulative impacts associated with

²⁷⁸ See JOINT PERMIT APPLICATION, *supra* note 1, App. at 663; Letter from Andrew Goetz, Pres., BCPeabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Feb. 24, 2011) (App. at 1400) ("We explained why an extensive compensatory mitigation plan was not submitted upfront 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 pipe and its method of placement, temporal impacts to the aquatic resource is the remaining impact that may require compensation . . . In the rest of the project corridor . . . reforestation will occur naturally or through mitigation plans coordinated with Department of Natural and Environmental Resources . . . The method of installing the pipeline in this area will allow replacing the cattail vegetation that existed before the construction with a desirable aquatic species.").

²⁷⁹ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1216).

²⁸⁰ *Id.* App. at 1224, 1226.

the Via Verde project beyond those to aquatic resources. As detailed in Sections III, IV.B, and V.C, D of these comments, there are various other impacts associated with the Via Verde project that are significant and the Applicant has provided very little information as to whether or how it proposes to mitigate these impacts. In the absence of information clearly demonstrating that all impacts associated with the Via Verde project will be reduced to an insignificant level, the Corps must prepare an EIS that fully analyzes the significant impacts associated with the Via Verde project.

For the reasons discussed above, the Corps must prepare an EIS for the Via Verde project, as an EA and FONSI would be inappropriate. An EA is prepared when it is unclear whether a project would have substantial environmental impacts.²⁸¹ In cases where it is obvious that an EIS is required, the Corps can forego preparing an EA and move directly to the preparation of an EIS.²⁸² Based on the information provided to date from the public and various federal agencies, the Via Verde project would have substantial impacts on the human environment due to its effect on aquatic resources, threatened and endangered species, public health and safety, its proximity to historic and cultural sites, and other aspects of the human environment. In this case, an EIS is the appropriate environmental document for compliance with NEPA.

D. The Corps Cannot Avoid Preparing an EIS Under NEPA By Tiering to the Puerto Rico EIS.

The Corps cannot tier to or substantially rely on the Puerto Rico EIS. A federal agency is prohibited from tiering to a document that has not, itself, been subject to NEPA review because this circumvents the purposes of NEPA.²⁸³ The Puerto Rico EIS was not prepared in compliance with NEPA procedures, and it is inadequate to comply with federal standards because it does not adequately consider or evaluate the direct, indirect, and cumulative impacts associated with the Via Verde project.²⁸⁴ Indeed, the Corps has informed the Applicant that the information provided in the permit application and the Puerto Rico EIS is inadequate.²⁸⁵ The Corps stated, “[b]e advised that the information and or referenced materials provided is largely deficient, very conceptual, and failed to adequately address the issues raised by the agencies and the general public . . . the Corps believes that the project impacts have not been adequately quantified, thus precluding proper evaluation of the project’s direct and secondary impacts on the aquatic environment.”²⁸⁶ The Corps cannot tier to the Puerto Rico EIS because it has not procedurally or substantively met the requirements of NEPA.

Moreover, CEQ regulations only allow tiering when a broad EIS has been prepared and a lesser statement is being prepared “on an action included *within* the entire program or policy,” which is not the case here.²⁸⁷ Additionally, the Corps cannot tier to an EIS prepared by the Applicant

²⁸¹ *Greater Yellowstone Coal. v. Flowers*, 359 F.3d 1257, 1274 (10th Cir. 2004).

²⁸² 33 C.F.R. Pt. 325, App. B § 7 (2010); 40 C.F.R. § 1508.9 (2010).

²⁸³ *Kern v. U.S. Bureau Land Mgmt.*, 284 F.3d 1062, 1073 (9th Cir. 2002).

²⁸⁴ *See supra* Section V-C, D of these comments.

²⁸⁵ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1145-46).

²⁸⁶ *Id.*

²⁸⁷ 40 C.F.R. § 1502.20 (2010).

because that is an impermissible delegation of federal authority and responsibility to a “local, interested entity that would not likely bring the needed objectivity to the mandated evaluation of federal interests.”²⁸⁸ The Corps has a duty to exercise independent judgment²⁸⁹ to ensure the action taken, if any, will be informed by “accurate scientific analysis, expert agency comments, and public scrutiny.”²⁹⁰

V. THE CORPS MUST INCLUDE A THOROUGH ANALYSIS OF THE VIA VERDE PROJECT IN ITS ENVIRONMENTAL IMPACT STATEMENT.

The Corps must require the completion of a comprehensive EIS. To do so, the Corps, as the lead agency, must request that the federal agencies with jurisdiction and special expertise such as NMFS and FWS to be cooperating agencies. The EIS should be based on a broader and more accurate statement of the Via Verde project purpose; include an analysis of a reasonable range of alternatives that flow from that project purpose; and thoroughly analyze the direct, indirect and cumulative impacts associated with the Via Verde project. Furthermore, to ensure compliance with NEPA, the Corps must make a concerted effort to include the public in every stage of the process.

A. The Corps EIS Must Include a Broader and More Accurate Statement of the Purpose and Need for the Proposed Project.

An EIS must include a statement of the underlying purpose and need to which the agency is responding in proposing the alternatives.²⁹¹ It is the agency’s responsibility to define, at the outset, the purpose of the action.²⁹² Furthermore, the Corps must consider and express the underlying purpose and need from the public’s perspective.²⁹³

As discussed above in Section II-B of these comments, the Applicant has proffered an unduly narrow statement of purpose, and “the Corps has a duty under NEPA to exercise a degree of skepticism in dealing with self-serving statements from a prime-beneficiary of the project.”²⁹⁴ The Corps should skeptically view the self-serving purpose proffered by the Applicant which artificially bifurcates the island and the Applicant’s wholly integrated system by narrowly defining the project purpose as “to economically construct a pipeline to deliver natural gas to three existing power facilities [on the northern coast of Puerto Rico] operated by [the

²⁸⁸ *Sierra Club v. U.S. Army Corps Engineers*, 701 F.2d 1011, 1038 (2d Cir. 1983).

²⁸⁹ 33 C.F.R. Pt 325, App. B (2010).

²⁹⁰ 40 C.F.R. § 1500.1 (2010).

²⁹¹ 40 C.F.R § 1502.13 (2010); 33 C.F.R. Pt. 325, App. B § 9(4) (2010); 40 C.F.R. § 1502.14 (2010).

²⁹² 33 C.F.R. Pt 325, App. B § 9 (2010) (“Also, while generally focusing on the applicant's statement, the Corps, will in all cases, exercise independent judgment in defining the purpose and need for the project from both the applicant's and the public's perspective.”).

²⁹³ 33 C.F.R. Pt. 325, App. B § 9 (2010) (“[T]he Corps also should consider and express that activity's underlying purpose and need from a public interest perspective . . . for example, . . . ‘to meet the public's need for electric energy.’”).

²⁹⁴ *Simmons v U.S. Army Corps Engineers*, 120 F. 3d 664, 669 (7th Cir. 1997); *Citizens Against Burlington, Inc. v Busey*, 938 F.2d 190, 209 (D.C. Cir. 1991).

Applicant].”²⁹⁵ The Corps should instead adopt a broader statement of the purpose and need that is consistent with the actual stated objective of the Via Verde project, which is to achieve a 50 percent reduction in the use of oil to fuel the Applicant’s electricity generation system. The following review of the Via Verde project history and evolution will further illustrate why the Applicant’s narrow statement of the purpose and need for the project is not accurate.

EcoEléctrica’s LNG terminal was the first, and remains the only source of natural gas in Puerto Rico.²⁹⁶ On May 15, 1996, FERC authorized EcoEléctrica to construct and operate the LNG terminal, which was to include two storage tanks, six vaporizers, a gas line to serve the Applicant’s Costa Sur plant, and various other components.²⁹⁷ EcoEléctrica only constructed one storage tank and two vaporizers, and FERC’s approval for the remaining components lapsed.²⁹⁸ On April 16, 2009, FERC authorized EcoEléctrica to construct two additional vaporizers and other facilities associated with the vaporizers to supply natural gas to the Applicant’s Aguirre power plant.²⁹⁹ The Applicant’s Costa Sur plant was not converted to natural gas,³⁰⁰ and the pipeline project that was to be constructed to supply the Aguirre plant was later cancelled.³⁰¹

On November 15, 2010, EcoEléctrica informed FWS, copying FERC, that it planned to modify the LNG terminal, as approved by FERC in 2009, and would supply natural gas to the Applicant’s Costa Sur plant.³⁰² EcoEléctrica stated, “the current Expansion Modification is not part of [the Applicant’s] recently announced Via Verde Pipeline Project, [and] EcoEléctrica would need to request FERC’s approval for any physical or operational modifications that might be necessary at its facility as a function of the Via Verde Pipeline Project.”³⁰³ Contrary to EcoEléctrica’s statements, the Applicant, on January 28, 2011, indicated the modification occurring at EcoEléctrica, already approved by FERC, would supply the Via Verde project with natural gas:

... determined at full capacity, for the San Juan 5 & 6 and Cambalache Combined Cycle Units. Additional product will be available to fuel Costa Sur 5 & 6 steam units based on [the Applicant’s] operating determination. Moreover, approved FERC modifications will allow [the Applicant] to fully utilize available natural

²⁹⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 616.

²⁹⁶ Order Amending Authorization under Section 3 of the Natural Gas Act, 127 FERC ¶ 61,044 (April 16, 2009) (App. at 298–99).

²⁹⁷ Order Granting NGA Section 3 Authorization for the Siting, Construction, and Operation of LNG Facility, 75 FERC ¶ 61,157 (May 15, 1996) (App. at 39).

²⁹⁸ Order Amending Authorization under Section 3 of the Natural Gas Act, 127 FERC ¶ 61,044 (April 16, 2009) (App. at 304–05).

²⁹⁹ *Id.*

³⁰⁰ *Id.*

³⁰¹ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Kimberly D. Rose, Secretary, Federal Energy Regulatory Commission (Oct. 25, 2010) (App. at 910).

³⁰² Letter from Robert C. Wyatt, Envtl. Affairs Assistant, EcoEletrica, to Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Nov. 15, 2010) (App. at 927–27).

³⁰³ *Id.* EcoEléctrica indicated that, because the delivery of natural gas to the Applicant’s Costa Sur plant had already undergone environmental review by FERC and was approved in its 1996 Order, the change of delivery from Aguirre back to Costa Sur did not require any additional review or approval by FERC. *Id.*

gas to fuel its entire north coast facilities based on the capacity established factor, which considers individual heat rates and predetermined fuel mixtures operating characteristics.³⁰⁴

On March 7, 2011 the Applicant stated it would purchase natural gas (approximately 93MM scf/day) from EcoEléctrica, in accord with the 2009 FERC approval, and would be able to fuel, “on different operational and load ratios, Units 5 & 6 of the San Juan Steam Plant, Units 5 & 6 that recently were converted into dual fuel operation located at the South Coast plant, and [the Applicant’s] other co-fired generating units.”³⁰⁵ Although the Applicant has expressed confidence that there is, indeed, enough gas to supply the Via Verde project, it is unclear whether the supply will allow the Applicant to operate all three of its north coast plants and Costa Sur at a reasonable capacity or allow for some growth in demand.

The Applicant asserts that 93MMscf/day from EcoEléctrica would allow for enough natural gas to run units at San Juan, Cambalache and Costa Sur and vaguely indicates there will be enough to supply all three north coast facilities.³⁰⁶ However, a break down of the numbers indicates the Applicant may be overstating its ability to run its system, including all three northern plants, solely on the currently approved capabilities of the EcoEléctrica LNG terminal. We understand the EcoEléctrica plant currently has a contracted capacity of 507 MW and, with a normal dispatch, generally requires about 69 MMscf/day from EcoEléctrica. This only covers the facility’s current normal consumption of natural gas. The facility has a design capacity of 580 MW; therefore, the plant could need up to 93 MMscf/day from the LNG terminal to operate under different load scenarios. As the EcoEléctrica LNG terminal currently has two (93 MMscf/day) regasification stations (vaporizers), this allows the EcoEléctrica plant to operate up to its useable maximum design regasification capacity and leaves one regasification station for backup in order to maintain reliability.

For the Applicant’s natural gas supply, EcoEléctrica is adding two additional (93MMscf/day) regasification stations pursuant to the 2009 FERC approval. As with the EcoEléctrica plant, we understand one of these regasification stations must be used as a backup for reliability purposes. Therefore, the actual useable design regasification capacity that will be available to the Applicant is 93 MMscf/day under normal circumstances. If the Applicant only wanted to deliver gas to its three northern plants through the Via Verde project, it would require 416 MMscf/day to run those facilities simultaneously with a 100 percent load factor. If the Applicant added Costa Sur running at 100 percent along with the northern plants, they would need a total of 609 MMscf/day of gas to operate. We understand, however, that the plants do not generally run at 100 percent, so we looked at what amount of natural gas it would take to run the three northern plants at a 60 percent load factor:

Cambalache (247 MW): 41 MMScf/day

³⁰⁴ Letter from Francisco E. Lopez Garcia, Head, Envfl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng’s-Antilles Office (Jan 28, 2011) (App. at 1218).

³⁰⁵ Letter from Angel L. Rivera Santana, Director, Planning and Environmental Division, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (March 7, 2011) (App. at 1408).

³⁰⁶ *Id.* App. at 1408-09.

San Juan 5 and 6 Combined Cycle Units (440 MW): **45 MMscf/day**

San Juan 7-10 (400 MW): 67MMscf/day

Palo Seco 1 and 2 (200 MW): 33MMscf/day

Palo Seco 3 and 4 (401 MW): 63 MMscf/day

If Costa Sur of gas, running at a 60 percent load factor, is added, that plant alone would need **116 MMscf/day**. These numbers make clear that the Applicant does not have enough gas from EcoEléctrica to supply even the Costa Sur plant at 116 MMscf/day let alone adding the gas supply needed for the units at San Juan and Cambalache. Adding the numbers bolded above indicates that to run the units the Applicant states it can run with the gas supply from EcoEléctrica, it would require approximately 202 MMscf/day of gas, which is more than the current modifications will allow for (assuming that the Applicant would use both regasification stations and have no backup for reliability). These numbers help shed light on a recent article indicating Excelerate was awarded a contract for a FSRU and the Applicant intends to issue a second tender for another FSRU to provide natural gas to two facilities on the south coast of Puerto Rico.³⁰⁷ As discussed below, this information collectively suggests the Applicant would like to isolate the Via Verde project and bifurcate its system and the island in order to limit the amount of environmental review required.

Although the Applicant appears to believe it can change the delivery end point of the natural gas it will acquire from EcoEléctrica without any supplemental or additional environmental review of the change, the Corps must ensure that it defines the purpose and need for the Via Verde project in a manner that reflects the actual purpose and need, incorporating any related activities or actions that are necessitated by the proposed project or required for the proposed project. NEPA requires the Corps to address not only the impacts of the specific activity needing a permit, but the entire project where there is sufficient control and responsibility to warrant federal review.³⁰⁸ Under its own regulations, the Corps possesses sufficient control and responsibility when the regulated activity comprises a link in a corridor project and when there is cumulative federal control and responsibility.³⁰⁹ The Via Verde project is simply a link between the supply of natural gas and the Applicant's plants that will use the gas to create electricity. Also, the Via Verde project, the modifications occurring at the LNG terminal, and any other activities necessary to supply natural gas to the Applicant's plants have sufficient cumulative federal involvement through necessary approvals to require the Corps to analyze in an EIS all portions of the Via Verde project, including those that involve storing, supplying, or connecting natural gas to or for the pipeline.

The environmental review included in FERC's 1996 authorization for delivery of natural gas to Costa Sur from the LNG terminal is at least 15 years old, and the environmental review

³⁰⁷ *Excelerate Awarded Puerto Rico FSRU Contract*, ICIS HEREN (Mar. 07, 2011, 15:32:05)

<http://www.icis.com/heren/articles/2011/03/07/9441498/lng/lmd/excelerate-awarded-puerto-rico-fsru-contract.html>.

The Applicant has already opined that such units did not constitute a feasible alternative because they will significantly impact sensitive marine environments such as coral reefs. Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan 28, 2011) (App. at 1236-38).

³⁰⁸ 33 C.F.R. Pt. 325, App. B § 7(b) (2010).

³⁰⁹ *Id.*

associated with FERC's 2009 authorization only included the modification at the LNG terminal and a pipeline to deliver natural gas from EcoEléctrica to Aguirre, which was later canceled.³¹⁰ The Applicant now proposes, without concurrence from EcoEléctrica, to change the delivery endpoint of a significant portion of the acquired natural gas resulting from a modification approved by FERC and seeks to rely upon environmental reviews that are outdated and did not, in any way, anticipate or evaluate the delivery of natural gas to at least three separate power plants via a 92-mile pipeline that would transect the island of Puerto Rico.

The Applicant's practice of conveniently switching fuel delivery end points to any number of the plants within its system indicates the true intention of its historic and currently proposed activity, which is to reduce its dependence on oil by delivering natural gas to its system, not just its north coast plants. The source and method of delivering the natural gas to the Via Verde project is a necessarily interrelated project to the pipeline itself because, but for the supply of natural gas, the Via Verde project would not be worthwhile. The Corps recognized the Applicant's failure to discuss the supply of natural gas and any associated activities when it stated, "[w]ithout an actual connection to a natural gas supply system the Via Verde natural gas pipeline cannot be considered under [NEPA] as a single and complete project."³¹¹

The Corps should critically evaluate the Applicant's information and statements with regard to the supply and method of natural gas delivery to the Via Verde project and incorporate any interrelated activities that must occur to supply the project, particularly if those activities have outdated, otherwise insufficient, or no environmental reviews. Moreover, the Corps should revise the statement of purpose and need to more accurately reflect the true purpose of the Via Verde project. This is critically important because the statement of purpose and need defines the range of alternatives and the scope of the analysis of environmental consequences in an EIS, as discussed further below.

B. The Corps EIS Must Analyze a Reasonable Range of Alternatives.

NEPA requires an EIS to analyze alternatives to the proposed action. The range of alternatives is dictated by the nature and scope of the project purpose.³¹² The Corps must consider in detail a reasonable range of alternatives that meet the underlying project purpose and can be feasibly accomplished.³¹³ As discussed in Section V-A of these comments, the Applicant proposes a narrow project purpose that eliminates a critical set of reasonable alternatives, such as converting one or more of the power plants on the south coast to natural gas, developing renewable energy sources such as wind, PV, and solar heaters and any combination of these alternatives or other natural gas storage and delivery options for the Applicant's system. The Applicant has argued

³¹⁰ Order Amending Authorization under Section 3 of the Natural Gas Act, 127 FERC ¶ 61,044 (April 16, 2009) (App. at 303-04); Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Kimberly D. Rose, Secretary, Federal Energy Regulatory Commission (Oct. 25, 2010) (App. at 910).

³¹¹ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1165).

³¹² See 33 C.F.R. Pt. 325, App. B (2010) (indicating the stated goal of a project dictates the scope of reasonable alternatives); *Illio'ulaokalani Coalition v. Rumsfeld*, 464 F. 3d 1083, 1095 (9th Cir. 2006); *Friends of Southeast's Future v. Morrison*, 153 F. 3d 1059, 1065 (9th Cir. 1998).

³¹³ 33 C.F.R. Pt. 325, App. B (2010).

that it is not necessary to take into account the southern plants in its analysis because the project purpose is narrowed to the northern plants.³¹⁴ Under this view, renewable energy sources are eliminated because they would not meet the narrow purpose of getting natural gas to the north coast power plants. The Corps has the duty to independently determine the project purpose in such a way that allows for reasonable alternatives to be considered. The purpose of the Via Verde project is to provide alternative fuel sources to the Applicant's overall electricity generation system and thereby reduce the electricity generated by oil in the Applicant's system. Accordingly, the Corps should conduct its alternatives analysis based on this broader purpose.

The Applicants alternatives analysis submitted is incomplete. The Corps noted that, even based on what was submitted, the alternatives analysis was narrower than the Applicant's prior proposals.³¹⁵ Specifically, the Corps noted the following inadequacies in the Applicant's submission:

The [A]pplicant's alternative analysis does not include PREPA's original plan to build a new natural gas combined cycle power plant close to the existing Costa Sur facility, and to retro fit both Costa Sur and Aguirre power plants to use natural gas. This was the [A]pplicant's preferred alternative in the past and now it is not mentioned in the [A]pplicant's alternatives analysis.³¹⁶

A comprehensive alternatives analysis would include an analysis of alternatives involving the conversion of the Aguirre and Costa Sur power plants on the south coast to natural gas.³¹⁷ Importantly, converting these two existing power plants would reduce the existing electricity generated from oil on the island by 59 percent.³¹⁸ A complete analysis would also require considering alternatives related to renewable energy developments such as wind, solar, and hydroelectric generation.³¹⁹ There are reasonable alternatives that would allow the Applicant to achieve the goal of providing an alternative source of energy to the market. The EIS needs to completely and objectively evaluate these reasonable alternatives.³²⁰

Furthermore, the Corps must consider the impacts beyond the project area because there is sufficient federal control and responsibility over the project. The Corps's NEPA obligations extend beyond the limits of the portion of the project at hand where "the cumulative Federal

³¹⁴ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Elec. Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan 28, 2011) (App. at 1217).

³¹⁵ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1148-49).

³¹⁶ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Dec. 15, 2010) (App. at 1107).

³¹⁷ *Id.*

³¹⁸ See *PREPA Is*, AUTORIDAD DE ENERGÍA ELÉCTRICA http://www.prepa.com/AEEES2_ENG.ASP (last visited Apr. 17, 2011) (indicating the total combined MW for the South Plants is 2482. The total MW for the North Plants is 1689.5. The total electricity generated by oil is 4171.5) (go to the Costa Sur Plant, Aguirre Plant, Cambalache Plant, San Juan Plant, and Palo Seco Plant links located under the tab labeled 'PREPA is').

³¹⁹ P.R. ELECTRIC POWER AUTH. Chapter 4: Study of Alternatives and Selection of the Alignment, in ENVTL. IMPACT STATEMENT (2010) (App. at 350-52).

³²⁰ 33 C.F.R. Pt. 325, App. B (2010).

involvement of the Corps and other agencies is sufficient to grant legal control over such additional portions of the project.”³²¹ The cumulative federal involvement extends the Corps’ responsibilities under NEPA to include analysis of the LNG terminal modifications as they require FERC approval.³²² This means any additional modifications to the LNG terminal or other LNG supply facilities must be considered as a part of the EIS.³²³

C. The Corps EIS Must Include a Thorough Analysis of the Direct and Indirect Effects of the Proposed Project.

The Corps must analyze the direct, indirect, and cumulative impacts³²⁴ of the Via Verde project.³²⁵ Direct effects are “caused by the action and occur at the same time and place.”³²⁶ Indirect effects are “caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”³²⁷ Specifically, the Corps must consider the federal and non-federal “ecological . . . aesthetic, historic, cultural, economic, social, or health, whether direct, indirect, or cumulative”³²⁸ impacts of the proposed project. The Second Circuit has held that the impacts must be compiled in good faith to provide sufficient information to allow a decision maker to fully consider all of the factors involved and make a reasoned choice by balancing the risks of harm to the benefits.³²⁹ The Applicant has not provided the Corps sufficient information to conduct such an analysis or make such a determination through the Puerto Rico EIS or the permit application. The impacts analysis should be based on the full scope of impacts from the broader project purpose as discussed in Section V-A of these comments. However, even if it were just limited to the Via Verde project itself, the impacts analysis is deficient.

The Applicant has noted that there would be some direct effects, but it has failed to provide complete information on these effects. As discussed in Section II above, the analysis of direct effects is inadequate with regard to aquatic impacts. Moreover, as discussed in Section III of these comments, the evaluation of endangered and threatened species and their habitat is only in the preliminary stages and much more work needs to be done before impacts can be adequately assessed.

Notably in a December 22, 2010 letter to the Applicant, the Corps has indicated that the Via Verde project’s impacts have not been adequately quantified; thus precluding proper evaluation of the project’s direct and secondary impacts on the environment and that the Applicant needs to

³²¹ 33 C.F.R. Pt. 325, App. B § 7b(2)(A) (2010); *Save Our Sonoran, Inc. v. Flowers*, 408 F.3d 1113, 1122 (9th Cir. 2004).

³²² Letter from Robert C. Wyatt, Env’tl. Affairs Assistant, EcoEletrica, to Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Nov. 15, 2010) (App. at 926–27).

³²³ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Dec. 15, 2010) (App. at 1095–1096).

³²⁴ These comments will use the terms impacts and effects interchangeably as allowed under 40 C.F.R. § 1508.8.

³²⁵ *Nat’l Resources Def. Council v. Callaway*, 524 F. 2d 79, 88 (2d Cir. 1975); 40 C.F.R. § 1508.8(a); 40 C.F. R. § 1508.25 (2010).

³²⁶ 40 C.F.R. § 1508.8(a) (2010).

³²⁷ 40 C.F.R. § 1508.8(b) (2010).

³²⁸ 40 C.F.R. § 1508.8(b) (2010).

³²⁹ 42 U.S.C. § 4332 (2006); *Sierra Club v. U.S. Army Corps*, 701 F. 2d 1011, 1030 (2nd Cir. 1983).

provide a more comprehensive and detailed response to address the issues of concern.³³⁰ In response to the Corps' December 22, 2010 letter, the Applicant supplemented its Application with letters on January 28, 2011 and February 24, 2011.³³¹ However, this supplemental material is still deficient because it in large part reiterates information found in the Puerto Rico EIS. For example, the Applicant responded to the Corps request for more information by stating: "We must profess some confusion on this point since Chapter VI in the [State EIS] . . . is quite detailed in discussing impacts expected to occur from the project."³³² This cross-reference to the inadequate Puerto Rico EIS does not address the need for additional information. While in some sections of the February 24, 2011 letter, the Applicant offers some additional information on the impacts on forests and wetlands, it remains deficient in scope and detail with regard to the other impacts.

The Applicant has not adequately responded to agencies requests for more information on the impacts. Not only does the January 28, 2011 disregard the Corps concern of potential impacts on the aquatic habitat, the February 24, 2011 response from the Applicant's consultant inadequately considers the projects impacts. A few examples can be found in the Applicant's treatment of the impacts to estuarine forested habitat, forests, and wetlands. First, the Applicant underestimates the direct impacts the proposed project will have on estuarine forested habitat by stating 'there will be no impacts' because they will use HDD technology. However, this underestimates the direct impacts of moving the drilling equipment into place, the impacts caused by error, frac-outs, and retention ponds to hold the toxic bentonite material used during this process. Second, the Applicant states the Rio Abajo State Forest will not be impacted because the pipeline will be placed within the existing PR-10 easement. This is incorrect. The Applicant fails to consider the secondary impacts resulting from construction: safety concerns, altered ecosystem from the management of the 50 foot permanent ROW, changes in the hydrology of groundwater, etc. Similarly the Applicant dismisses the secondary impacts on the State Forest De La Vega because it argues the impacts of the construction will be temporary. Because it argues the impacts are temporary, nowhere is there a consideration of the secondary impacts on the forests of Puerto Rico due to the proposed project. Third, the Applicant underestimates the impacts on wetlands by supposing the impacts will be limited to the 50 foot construction ROW and minimizing them by labeling them temporary.³³³ Limiting the impact to the construction ROW ignores the fact that any pollutants discharged have the ability to migrate. A discharge can have secondary impacts affecting the entire wetland as well as the hydrology of the area. These impacts could have short and long-terms affects on the groundwater and drinking water.

³³⁰ Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App at 1146).

³³¹ Letter from Edgar W. Garcia , Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Head, Env'tl. Protection & Quality Assurance Div, P.R. Power Auth. (Mar. 18, 2011) (App. at 1410).

³³² Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Elec. Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan. 28, 2011) (App. at 1213-14).

³³³ Letter from Francisco E. Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1222-24).

Furthermore, the Applicant has failed to adequately address community concerns such as addressing safety concerns from potential seismic activity. Puerto Rico lies in an active plate boundary zone, and earthquakes are a "constant threat."³³⁴ The risk of seismic activity disrupting the pipeline is of especially significant concern in such the densely populated area of San Juan. The Applicant notes that the route crosses the Great Southwestern Puerto Rico Fault Zone³³⁵ and attempts to mitigate some of the most egregious risks posed by earthquake activity,³³⁶ but does not discuss the potential catastrophic impacts on local communities that could flow from a seismic event on or near the pipeline.

The Via Verde project would also have many significant indirect effects that have not been addressed at all. As noted above, indirect effects are those "which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable."³³⁷ Indirect effects may include "growth inducing effects and other effects related to induced changes in the pattern of land use, population density or growth rate, and related effects on air and water and other natural systems, including ecosystems."³³⁸ The Corps "must evaluate the reasonably foreseeable effects of the proposed action."³³⁹ The Applicant has not adequately evaluated the indirect impacts of the proposed project. For example, of the approximately twenty-three impacts listed in the Puerto Rico EIS,³⁴⁰ only seven of them include any consideration of secondary impacts: surface water, ground water, trenching, air quality, flora and fauna, water consumption, and agriculture.³⁴¹ Furthermore, the Applicant concludes that impacts on water bodies are only temporary.³⁴² The Applicant has not provided a good faith analysis of the reasonably foreseeable indirect impacts.

³³⁴ Uri ten Brink, Chief Scientist U.S. Geological Survey, *The Puerto Rico Trench: Implications for Plate Tectonics and Earthquake and Tsunami Hazards*, NAT'L OCEANIC ATMOSPHERIC ADMIN (DEC. 4, 2006).

³³⁵ See e.g., P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 550).

³³⁶ *Id.* (App. at 464).

³³⁷ 40 C.F.R. § 1508.8 (2010).

³³⁸ 40 C.F.R. § 1508.8(b) (2010).

³³⁹ *Dubois v. U.S. Dept. Agric.*, 102 F. 3d 1273, 1286 (1st Cir. 1996).

³⁴⁰ The Puerto Rico EIS lists the impacts for: agricultural, surface water, ground water, wetlands, floodplains, infrastructure, water consumption, transportation, archaeological sites, noise, spills, hazardous waste, non hazardous solid waste, socioeconomic, economic, community, public service facilities, land acquisition, flora and fauna, endangered species, air quality, and human health. (App. at 440-577).

³⁴¹ P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 569); JOINT PERMIT APPLICATION, *supra* note 1, App. at 814-50; Letter from Francisco E. Lopez Garcia, Head, Env'tl. Prot. & Quality Assur. Div., P.R. Elec. Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Jan. 28, 2011) (App. at 1213-54); Letter from Andrew Goetz, President, BCPeabody, to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office (Feb. 24, 2011) (App. at 1396-1402).

³⁴² See e.g., P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 477) ("No permanent effect on the bodies of water is anticipated. However, a temporary effect during the construction process in the crossing of river ravines is anticipated, which will be appropriately controlled."); See also *id.* at 448 ("In case, of wetlands the impact is temporary, during the installation of the pipeline that transports natural gas. As proposed the Project does not entail permanent impact in the wetlands, so it is not related to cumulative impacts that result from other actions").

For example, some of the potential indirect impacts on species can include increased access to the rainforest which could lead to an increase in predators³⁴³ (i.e. feral cats) of endangered species and increased access to these undisturbed areas to off-road vehicles which could impact the species behavioral patterns.³⁴⁴ Furthermore, the 50 foot permanent ROW maintenance could allow hunters and poachers access to these previously inaccessible areas, which could further impact species. The Applicant notes “poaching continue[s] to affect the population” of Puerto Rican boas, but fails to then address how the construction and permanent ROW could be utilized by poachers.³⁴⁵ Additionally, the Applicant has not addressed potential long-term indirect impacts on local communities related to safety issues associated with the pipeline including the risk of explosion.³⁴⁶ While the Applicant notes the risk from leaking oil during construction,³⁴⁷ the Applicant has not yet accounted for the long-term risks of water contamination related to the corrosion or failure of various segments of the pipeline.³⁴⁸ Accordingly, while the Puerto Rico EIS and the Permit Application note the impact from ground transportation and traffic during construction Applicant does not address impacts from disruption caused by the noise and pollution from activities related to the maintenance and repair of the pipeline.³⁴⁹ Finally, the Applicant fails to address the impacts of increased population growth and development and sprawl that will be facilitated by expanding energy capacity in various cities.³⁵⁰

Additionally, there are reasonably foreseeable future actions that must be considered in the EIS as indirect impacts concerning the Applicant’s own related operations that have not been evaluated to date. For example, the Applicant proposes to provide natural gas to the existing power plants on the north coast; however, as discussed in Section V-A of these comments, it is

³⁴³ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Col. Alfred A. Pantano, Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Dec. 15, 2010) (App. at 1107-08) (“[T]his long corridor . . . will create an avenue for invasive and noxious species to enter previously isolated areas of wildlife habitat”); Letter from Hector E. Quintero Vilella, Ph.D. Ecology, to Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Oct. 25, 2010) (App. at 906) (“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 Night jar”).

³⁴⁴ Letter from Hector E. Quintero Vilella, Ph.D. Ecology, to Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office (Oct. 25, 2010) (App. at 906) (noting that 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 Peiiones de Melones in Cabo Rojo were dozens of off-roaders come together every weekend).

³⁴⁵ JOINT PERMIT APPLICATION, *supra* note 1, App. at 845.

³⁴⁶ David Vukusich, Member, Comunidad Toabajena en Defensa de la Zona Costera, Inc., to Col. Alfred A. Pantano Jr., Dist. Commander, U.S. Army Corps of Engineers-Jacksonville Dist. (Nov. 19, 2010) (App. at 950-52). *See also* Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1148) (noting that the Applicant has yet to address public safety issues).

³⁴⁷ P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts, in* ENVTL. IMPACT STATEMENT (2010) (App. at 479, 481).

³⁴⁸ *See* Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office, to Francisco E. Lopez, Eng’r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1148) (stating the Applicant has failed to address health hazards and its effects on the nearby communities).

³⁴⁹ *See* P.R. ELECTRIC POWER AUTH., *Chapter 6: Impacts, in* ENVTL. IMPACT STATEMENT (2010) (App. at 489) (addressing noise issues relating only to construction of the Via Verde project); JOINT PERMIT APPLICATION, *supra* note 1, App. at 666-67, 671 (addressing only construction related noise increases).

³⁵⁰ DEP’T OF DEFENSE, JACKSONVILLE DIST. CORPS. OF ENGINEERS-ANTILLES OFFICE, PERMIT APPLICATION NO. SAJ-2010-02881, PUBLIC NOTICE (Nov. 19, 2010) (App. at 953) (noting that the pipeline will pass along populated urban areas, roads, and highways).

not clear the EcoEléctrica LNG terminal has sufficient capacity to supply all three north coast power plants along with the Costa Sur plant. This strongly suggests the Via Verde project will lead to another expansion or modification of the LNG terminal or some other storage and delivery option for natural gas. These additional activities are reasonably foreseeable and may, in fact, be necessary for the Via Verde project; therefore, they must be a part of the indirect impact section of the EIS, and incorporated into other sections of the EIS as well.

D. The Corps EIS Must Include a Thorough Analysis of the Cumulative Impact Associated with the Proposed Project.

The cumulative impact analysis in an EIS must include all effects which result “from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions” and “can result from individually minor but collectively significant actions taking place over a period of time.”³⁵¹ The First Circuit has held that cumulative impacts must be considered if there are significant impacts that are reasonably foreseeable and sufficiently likely to occur.³⁵² The Ninth Circuit has held that similarities in underlying cause, proposed solution, and general geography are sufficient to place the actions outside the scope of the project purpose into the category of cumulative impacts.³⁵³ The Puerto Rico EIS limits its analysis of cumulative impacts to “sensitive or critical resources” but fails to indicate how it made this determination concerning what is sensitive or critical.³⁵⁴ The Puerto Rico EIS includes scattered references to other impacts such as earth movement activities for agriculture, an unnamed industrial landfill, a ROW of Gasoducto del Sur, clearing of land for the construction of houses and businesses, increased maritime traffic, increased traffic, noise, and demand for water from other unidentified projects, and impacts from other future developments.³⁵⁵ However, the Puerto Rico EIS completely fails to include the necessary specificity in order to conduct a comprehensive analysis of the cumulative impacts from all of this other development on all of the natural resources and local communities affected by the Via Verde project. Furthermore, it fails entirely to address the cumulative impact on mangroves and wetlands.³⁵⁶

These inadequacies were noted by FWS when it stated in its January 20, 2011 letter to the Applicant, in response to the supplemental information provided by the Applicant, that the Puerto Rico EIS did not “provide an in-depth analysis of direct, indirect, cumulative, interrelated and interdependent effects on our listed species and their habitats, aquatic resources . . . forested lands, and sinkholes in the northern karst region of Puerto Rico.”³⁵⁷ At this stage, the

³⁵¹ 40 C.F.R. § 1508.7 (2010).

³⁵² *Dubois*, 102 F.3d, at 1286.

³⁵³ *Earth Island Inst. v. U.S. Forest Serv.*, 351 F.3d 1291, 1306 (9th Cir. 2003).

³⁵⁴ P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 440).

³⁵⁵ See e.g. P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT (2010) (App. at 450, 471, 502, 511–12).

³⁵⁶ See P.R. ELECTRIC POWER AUTH. *Chapter 6: Impacts*, in ENVTL. IMPACT STATEMENT 29 (2010) (App. at 440–577).

³⁵⁷ Letter from Edwin Muniz, Field Supervisor, U.S. Fish & Wildlife Serv. Boqueron Field Office, to Angel Rivera Santa, Dir., Planning & Env'tl. Protection P.R. Electric Power Auth., (Jan. 20, 2011) (App. at 1198); Letter from Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps Eng's-Antilles Office, to Francisco E. Lopez, Eng'r, Autoridad de Energia Electrica (Dec. 22, 2010) (App. at 1148, 1151); Letter from Miles M. Croom, Asst.

appropriate next step is for the Corps to prepare a cumulative impact analysis in its EIS that addresses the full extent of past, present, and future projects and activities affecting the human and natural resources in the vicinity of the Via Verde project.

E. The Corps EIS Should Be Prepared in Conjunction with FWS and NMFS as Cooperating Agencies.

The Corps has taken a positive first step by assuming the role of lead agency under NEPA,³⁵⁸ and by requesting that Federal Highway Administration and FERC join the NEPA process as cooperating agencies.³⁵⁹ Furthermore, the Corps already appears to be consulting with the FWS and NMFS regarding listed species and essential fish habitat, respectively. If the Corps has not already done so, however, it should invite the wildlife agencies to be cooperating agencies because they have jurisdiction by law and special expertise with respect to the endangered and threatened species issues implicated by the proposed project. FWS should be a cooperating agency because it has special expertise in conserving listed species and their habitat³⁶⁰ and jurisdiction under the ESA.³⁶¹ NMFS should be a cooperating agency because it has jurisdiction over marine, coastal, and anadromous species and their habitat under the ESA.³⁶² NMFS also has special expertise in evaluating the impacts of the Applicant's proposed alternatives: the deep water port and a new LNG terminal on the north coast. The cooperation of all of these agencies is essential in the development of an EIS.

VI. THE CORPS SHOULD INCLUDE EXTENSIVE PUBLIC INPUT AND PARTICIPATION AT EVERY STAGE IN THE DEVELOPMENT OF THE ENVIRONMENTAL IMPACT STATEMENT FOR THE VIA VERDE PROJECT.

As noted previously, the dual purposes of NEPA is to inform decision makers and the public.³⁶³ The purpose of an EIS is "to provide decision-makers with an environmental disclosure sufficiently detailed to aid in the substantive decision whether to proceed with the project in light of its environmental consequences . . . and provide the public with information on the environmental impact of a proposed project as well as encourage public participation in the development of that information."³⁶⁴ Public participation in the form of public comment letters,

Reg. Admin'r, Nat'l Marine Fisheries Serv. S.E. Regional Office, to Col. Alfred Pantano, Dist. Commander, U.S. Army Corps Eng's-Jacksonville Dist. (Dec. 19, 2010) (App. at 1125-27).

³⁵⁸ CEQ regulations stipulate that, when more than one Federal agency is involved in the same action or group of actions directly related because of functional interdependence, potential lead agencies must determine by letter of memorandum which shall be the lead agency. 40 C.F.R. § 1501.5 (2010).

³⁵⁹ Letter from Donald W. Kinard, Chief, Reg. Div., U.S. Army Corps Eng's-Jacksonville Dist., to Kimberly D. Bose, Sec'y, Fed. Energy Regulatory Comm'n (Dec. 23, 2010) (App. at 1160-61); Letter from Donald W. Kinard, Chief, Reg. Div., U.S. Army Corps Eng's-Jacksonville Dist., to Carlos Machado, Asst. Div. Admin'r, Fed. Highway Admin. (Dec. 23, 2010) (App. at 1158-59).

³⁶⁰ 16 U.S.C. § 1536 (2006); 42 U.S.C. § 4332(2)(c) (2006); 40 C.F.R. § 1501.6 (2010).

³⁶¹ *Id.*

³⁶² *Id.*

³⁶³ *Trout Unlimited v. Morton*, 509 F.2d 1276, 1287 (9th Cir. 1974).

³⁶⁴ *Id.* at 1282; *Calvert Cliffs Coord. Comm. v. Atomic Energy Comm'n*, 449 F.2d 1109, 1114 (D.C. Cir. 1971).

public meetings, and public hearings are an integral component of preparing an EIS.³⁶⁵ Public participation is essential to satisfy NEPA requirements.³⁶⁶

The Applicant attempts to narrow the public process and involvement when stating, “public hearings are held at the discretion of the District Engineer when a hearing provides additional information that is necessary for a thorough evaluation of pertinent issues not otherwise available.”³⁶⁷ For NEPA compliance, CEQ regulations require an agency “make diligent efforts to involve the public”³⁶⁸ in the process and hold public hearings or meetings “when there is substantial environmental controversy concerning the proposed action or substantial interest in holding the hearing.”³⁶⁹ Therefore we urge the Corps to use its discretion to involve the public in its NEPA process for the Via Verde project. Although the Applicant believes the public hearings held for the Puerto Rico EIS amount to sufficient public involvement, we believe it was inadequate because it was compiled on an expedited basis pursuant to an Executive Order by the Governor of Puerto Rico.³⁷⁰ Due to the expedited process under which the entire state approval process was conducted, the public involvement was not sufficient. The impacts of the proposed project are highly controversial, and extensive. The public has shown substantial interest in participating in the Corps process for the proposed project. Therefore, the Corps should exercise its discretion to include the public throughout the permit review because there is substantial environmental controversy and public interest.

In a memo accompanying Executive Order 12898, the President recognized the importance of the NEPA procedures in identifying environmental justice concerns.³⁷¹ The memorandum states, “each Federal agency shall analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effect on minority communities and low-income communities, when such analysis is required by [NEPA].”³⁷² The memorandum directs “each Federal agency shall provide opportunities for community input in the NEPA process.”³⁷³ Additionally, agencies are directed to “identify potential effects and mitigation measures in consultation with affected communities, and improve the accessibility of meetings, crucial documents and notices.”³⁷⁴

The Corps must initiate the full EIS process beginning with the publication of a Notice of Intent stating the Corps is preparing an EIS for the proposed Via Verde project.³⁷⁵ To the extent it has not already done so, the Corps must begin the scoping process to determine the issues, interested

³⁶⁵ 40 C.F.R. § 1506.6 (2010).

³⁶⁶ 40 C.F.R. §§ 1502.1, 1503.1, 1506.6 (2010).

³⁶⁷ Letter from Francisco E Lopez Garcia, Head, Env'tl. Protection & Quality Assurance Div., P.R. Electric Power Auth., to Edgar W. Garcia, Regulatory Project Manager, U.S. Army Corps of Engineers-Antilles Office (Jan 28, 2011) (App. at 1018).

³⁶⁸ 40 C.F.R. § 1506.6 (2010).

³⁶⁹ *Id.*

³⁷⁰ P.R. Exec. Order No. 2010-034 (July 19, 2010) (App. at 384).

³⁷¹ COUNCIL ON ENV'TL. QUALITY, ENVIRONMENTAL JUSTICE: GUIDANCE UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT 1 (1997) available at <http://ceq.hss.doe.gov/nepa/regs/ej/justice.pdf>.

³⁷² *Id.*

³⁷³ *Id.*

³⁷⁴ *Id.*

³⁷⁵ 40 C.F.R. §§ 1502.9, 1501.7 (2010).

organizations, lead agency, cooperating agency, and identify data gaps.³⁷⁶ The Corps should include the public in the scoping process through public meetings and comments.³⁷⁷ The Corps will also need to conduct all of the studies necessary to prepare a Draft EIS.³⁷⁸ The Draft EIS must include a statement of the underlying purpose and need; alternative ways of meeting the need; identify the preferred alternative; analyze the full range of direct, indirect, and cumulative effects of the preferred alternative as well as the reasonable alternatives of the action.³⁷⁹ The Corps should use its discretion to allow for an extended public comment period.³⁸⁰ The Final EIS must include a response to the substantive comments received.³⁸¹ Additionally, we ask that the Corps publish the Final EIS in the Federal Register.

So far, the permitting process for the Via Verde project has not been as transparent as it should be. First, all of the relevant documents are not easily accessible. For example, the Applicant states that the Puerto Rico EIS is available on the Applicant's website in a letter to FWS and provides a link to the website. However, the website only provides links to the Draft Puerto Rico EIS.³⁸² Second, as demonstrated by the numerous public comments and disagreements between and among the federal agencies and the Applicant, there is substantial environmental controversy surrounding the proposed project which clearly shows the need for additional hearings.³⁸³ In light of this heightened public interest and controversy surrounding proposed Via Verde project, the Corps should hold public hearings not only to provide additional public input and opportunities for the public to provide comments but also to gather additional information about the full extent of the proposed project's impacts. The Corps should extend the prescribed public comment periods beyond the 45-day minimum³⁸⁴ to facilitate as much public participation as possible.

VII. CONCLUSION

The proposed Via Verde project would cut a swath across the entire island of Puerto Rico as well as its sensitive northern coast region, traversing some of the most unique and richly diverse aquatic and biological habitat, not only in the United States but anywhere in the world. Evaluation of the proposed project's purpose and need, alternatives to, and impacts associated with the project on these precious resources calls upon the Corps to conduct a careful and comprehensive review in compliance with the CWA, ESA, and NEPA. For all the reasons discussed in these comments, the Applicant has failed to provide the Corps with sufficient information to allow the Corps to consider and evaluate the application; therefore, we request the Corps deny the dredge-and-fill permit for the Via Verde project. Specifically, the Applicant has

³⁷⁶ See e.g., Ian Levesque, et. al., CONSERVATION ANALYSIS IN THE MUNICIPALITY OF TOA BAJA, PUERTO RICO (May 3, 2006) available at www.wpi.edu/Pubs/E-project/Available/E-project-050206.../Report.pdf (noting the presence of community groups such as Casa Pueblo in Adjuntas, los Ciudadanos Pro Bosque del San Patricio in San Patricio, and los Ciudadanos pro Bosque del Plantio in Toa Baja) (App. at 70).

³⁷⁷ 40 C.F.R. §§ 1502.9, 1501.7, 1506.6 (2010).

³⁷⁸ 40 C.F.R. § 1502.9 (2010).

³⁷⁹ 40 C.F.R. § 1508.25 (2010).

³⁸⁰ 40 C.F.R. § 1506.10 (2010).

³⁸¹ 40 C.F.R. § 1502.9 (2010).

³⁸² *Declaración de Impacto Ambiental Final para el Proyecto Via Verde de Puerto Rico*, P.R. POWER AUTH., http://www.aeepr.com/viaverde_DIAP2.asp (last visited on Apr. 17, 2011).

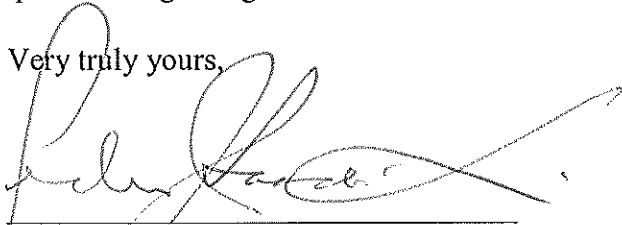
³⁸³ See *supra* Section VI of these comments.

³⁸⁴ 40 C.F.R. § 1506.10 (2010).

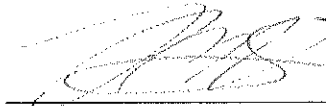
failed to overcome the strong presumption that less environmentally damaging alternatives exist and that alternatives which avoid wetlands and other special aquatic sites are less environmentally damaging. As a result, the Applicant has failed to make the "clear demonstration" that it must in order to meet its burden of demonstrating that its proposed project is the least environmentally damaging practicable alternative. If and when the Applicant submits an application with sufficient information, we urge the Corps to invite and encourage extensive public input and participation in all stages of its permitting and environmental review processes. We also urge the Corps to evaluate the Via Verde project in full compliance with all applicable laws and regulations, including the Guidelines, ESA and NEPA. The natural resources and human environment that could be irreversibly harmed through this large-scale industrial project are unique and extensive and, as the Corps recognized in its April 13, 2011 letter to EPA, the Applicant has failed to provide all of the relevant information necessary to process the permit and even then, the proposed project may still not be permissible. We appreciate the Corps' consideration of these comments and we urge the Corps to deny the Applicant's permit for the Via Verde project.

Thank you for your consideration of these comments. Please contact Pedro Saadé Llorens at saadellorensp@microjuris.com or Rafael Espasas at espasas@gmail.com if you have any questions regarding these comments.

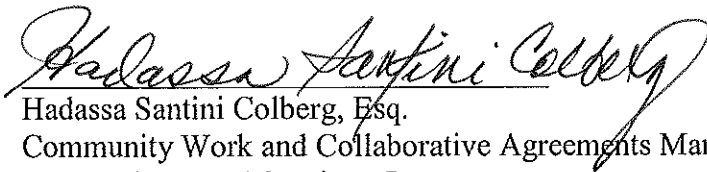
Very truly yours,



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Enclosure: Compact Disc with Appendix to Comments regarding SAJ 2010-02881 (IP-EWG),
Via Verde Pipeline Project

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