

Barron, Robert B SAJ

From: Yousev Garcia [yousevgr@yahoo.com]
Sent: Friday, August 05, 2011 8:50 AM
To: Barron, Robert B SAJ; Barron, Robert B SAJ
Cc: Daniel Pagan
Subject: Wetland Impacts of 3 EIS Alternatives Alignments
Attachments: Via Verde Alternatives AlignmentsWetlands Impacts[1] revised[1].pdf

Bob:

I hope your doing fine. Attached is a discussion, spread sheet and illustration, regarding the wetlands impact of the 3 alternatives evaluated in the EIS.

Yousev

Via Verde Alternatives Alignments as presented in the EIS and its relative Wetlands Impacts

The Puerto Rico Electric and Power Authority (PREPA) considered three inland alignments aimed to develop the Via Verde project. Two of the Alignments (route A & route B) were developed by others and route C was developed as an option to the previous ones aimed to achieve the following project goals: (1) avoid impact to critical habitats, (2) avoid communities maintaining a 150 setback distance from any structure, and (3) achieve a project that can be safely constructed within a reasonable period of time.

A detailed evaluation of each of these routes was completed as part of the Environmental Impact Statement Alternative Analysis. This evaluation allowed PREPA to select route C as the one that meets all these requirements and allows the construction of the Via Verde Project in compliance with all applicable regulation, as well as, within the project budget figures. Below please find a brief summary of the rationale utilized.

- Alignments A and B were discarded since after a comprehensive evaluation of the construction space available, the proximity of communities within said alignments and the abundant infrastructure on the area for the proposed alignments do not meet the basic project requirements.
- A detailed evaluation demonstrated that routes A and B showed a reduced impact to the wetland areas than alternative C, since most of the alignments were running through the PR 22 right of way, avoiding temporary impacts over the Caño Tiburones Natural Reserve and Río Cocal herbaceous wetland systems.
- Alternative C was the chosen one due to absence of infrastructure, distance from communities and available space for construction all of which were critical criteria's established as guidance for the planning and development of the Via Verde project.
- Alternative C was the one with the highest temporary impacts over the northern coast wetlands (See attached figure and spread sheet), but impacts will be temporary and minimal, especially if Best Management Practices supported by PREPA are adopted. In light of this, PREPA is developing a comprehensive Mitigation Plan consistent with all applicable environmental regulation as an additional effort to further mitigate temporary and permanent impacts to wetlands.
- Alternative C allowed PREPA to completely avoid all forested (high value) wetlands when the three options are considered. Most of the wetlands areas to be temporarily impacted are herbaceous ones with degraded wetlands functions and values.

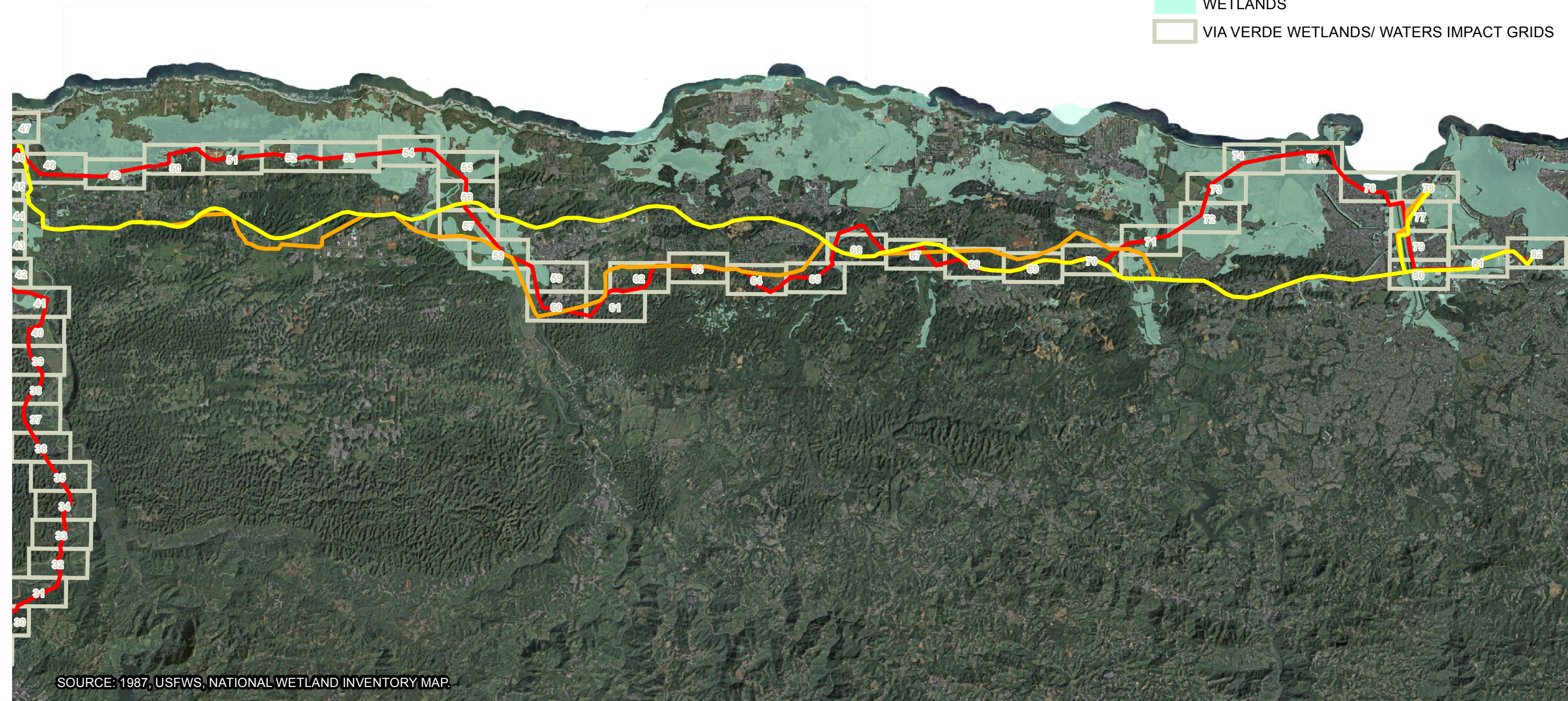
In light of the above, the temporary and permanent total impacts for the evaluated alternatives are as follows:

Alternative C (Selected)		Alternative A		Alternative B	
Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
281.36	1.68	100.55	1.33	120.08	1.42

VIA VERDE ALTERNATIVE ALIGNMENTS IMPACT OVER WETLANDS

Legend

- ROUTE A
- ROUTE B
- ROUTE C
- WETLANDS
- VIA VERDE WETLANDS/ WATERS IMPACT GRIDS



SOURCE: 1987, USFWS, NATIONAL WETLAND INVENTORY MAP.

Via Verde Wetlands/Waters Impact Spread Sheet

Sheet #	Notes/Comments	Wetland/Waters Impacts -Alternative C-		Alternative A		Alternative B	
		Temporary	Permanent	Temporary	Permanent	Temporary	Permanent
1		0	0.01	0	0.01	0	0.01
2		0.7	0	0.7	0	0.7	0
3		0	0	0	0	0	0
4		1.02	0	1.02	0	1.02	0
5		0	0	0	0	0	0
6		0	0	0	0	0	0
7		0	0	0	0	0	0
8		0	0	0	0	0	0
9		0.05	0	0.05	0	0.05	0
10		0.05	0	0.05	0	0.05	0
12		0.05	0	0.05	0	0.05	0
13		0	0	0	0	0	0
14		0	0	0	0	0	0
15		0.05	0	0.05	0	0.05	0
16		0.05	0	0.05	0	0.05	0
17		0	0	0	0	0	0
18		0.05	0	0.05	0	0.05	0
19		0.05	0	0.05	0	0.05	0
20		0.05	0	0.05	0	0.05	0
21		0.1	0	0.1	0	0.1	0
22		0.1	0	0.1	0	0.1	0
23		0	0	0	0	0	0
24		0.1	0	0.1	0	0.1	0
25		0.05	0	0.05	0	0.05	0
26		0	0	0	0	0	0
27		0.2	0	0.2	0	0.2	0
28		0.2	0	0.2	0	0.2	0
29		0	0	0	0	0	0
30		0	0	0	0	0	0
31		0.1	0	0.1	0	0.1	0
32		0	0	0	0	0	0
33		0	0	0	0	0	0
34		0	0	0	0	0	0
35		0	0	0	0	0	0
36		0	0	0	0	0	0
37		0	0	0	0	0	0
38		0	0	0	0	0	0
39		0	0	0	0	0	0
40		0	0	0	0	0	0
41		10.62	0	10.62	0	10.62	0
42		7.46	0	7.46	0	7.46	0

Via Verde Wetlands/Waters Impact Spread Sheet

43		7.71	0	7.71	0	7.71	0
44		6.29	0	6.29	0	6.29	0
45		0.09	0	0.09	0	0.09	0
46		6.29	0	6.29	0	6.29	0
47		0	0	0	0	0	0
48		16.75	0	0	0	0	0
49		14.13		0	0	0	0
50		17.14	0	0	0	0	0
51		15.93	0	0	0	0	0
52		14.3	0.26	0	0	0	0
53		14.98	0	0	0	0	0
54		14.93	0	0	0	0	0
55		6.94	0	0	0	0	0
56		5.35	0	5.35	0	0	0
57		9.86	0.09	0	0	4.93	0.09
58		11.73	0	0	0	11.73	0
59		7.81	0	0	0	7.81	0
60		0.41	0	0	0	0.41	0
61		0	0	0	0	0	0
62		0	0	0	0	0	0
63		0	0	0	0	0	0
64		0	0	0	0	0	0
65		0	0	0	0	0	0
66		1.36	0.55	1.36	0.55	1.36	0.55
67		16.01	0.25	16.01	0.25	16.01	0.25
68		0	0	0	0	0	0
69		0	0	0	0	0	0
70		5.19	0.1	5.19	0.1	5.19	0.1
71		15.06	0.38	7.53	0.38	7.53	0.38
72		9.38	0	0	0	0	0
73		10.06	0	0	0	0	0
74		8.93	0	0	0	0	0
75		0	0	0	0	0	0
76		0	0	0	0	0	0
77		4.35	0.04	4.35	0.04	4.35	0.04
78		1	0	1	0	1	0
79		6.06	0	6.06	0	6.06	0
80		7.51	0	7.51	0	7.51	0
81		3.63	0	3.63	0	3.63	0
82		1.14	0	1.14	0	1.14	0
Total		281.36	1.68	100.55	1.33	120.08	1.42