

SIERRA CLUB, NATURAL RESOURCES DEFENSE COUNCIL, and NATIONAL PARKS CONSERVATION ASSOCIATION, Plaintiffs, v. ROBERT B. FLOWERS, Chief of Engineers, United States Army Corps of Engineers, and STEVE WILLIAMS, Director, United States Fish and Wildlife Service; and MIAMI-DADE LIMESTONE PRODUCTS ASSOCIATION, INC., VECELLIO & GROGAN, INC., TARMAC AMERICA LLC, FLORIDA ROCK INDUSTRIES, INC., SAWGRASS ROCK QUARRY, INC., APAC-FLORIDA, INC., and RINKER MATERIALS OF FLORIDA, INC., Defendants/Defendant-Intervenors.

CASE NO. 03-23427-CIV-HOEVELER

UNITED STATES DISTRICT COURT FOR THE SOUTHERN DISTRICT OF FLORIDA

2006 U.S. Dist. LEXIS 12579

March 22, 2006, Decided

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For ROBERT B. FLOWERS, Chief of Engineers, Army Corps of Engineers, STEVE WILLIAMS, US Fish and Wildlife Service, defendants: Mark A. Brown, United States Department of Justice, Wildlife & Marine Resources Section, Washington, DC; Adam Joseph Siegel, United States Department of Justice, Environment and Natural Resources, Washington, DC; Norman L. Rave, Jr., Michael Semler, United States Department of Justice, Environment & Natural Resources, Washington, DC.

For RINKER MATERIALS OF FLORIDA, INC, intervenor-defendant: Rafe Petersen, Lawrence R. Liebesman, Holland & Knight, Washington, DC; Douglas Martin Halsey, Thomas Neal McAliley, White & Case, Miami, FL.

For MIAMI-DADE LIMESTONE PRODUCTS ASSOCIATION, INC., VECILLIO AND GROGAN, INC., TARMAC AMERICA, LLC, FLORIDA ROCK INDUSTRIES, INC., SAWGRASS ROCK QUARRY, INC., AP AC -- FLORIDA, INC., intervenor-defendants: Douglas Martin Halsey, Thomas Neal McAliley, White & Case, Miami, FL.

JUDGES: WILLIAM M. HOEVELER, SENIOR UNITED STATES [*2] DISTRICT JUDGE.

OPINIONBY: WILLIAM M. HOEVELER

OPINION:

ORDER ON MOTIONS FOR SUMMARY JUDGMENT

THIS CAUSE comes before the Court on the parties' various motions for summary judgment. n1 This Court heard argument on October 22, 2004, and additional argument was heard on September 30, 2005. The following briefly summarizes the most salient facts of this case, all of which will be addressed in greater detail below.

n1 Plaintiffs' Motion for Summary Judgment, filed May 10, 2004; Defendant Flowers' and Williams' ("Federal Defendants") Motion for Summary Judgment, filed June 4, 2004; Intervenor Defendant Rinker Materials' Motion for Summary Judgment, filed June 14, 2004; and a Motion for Summary Judgment filed jointly on June

14, 2004, by six intervening defendants: Miami-Dade Limestone Products Association, Inc.; Vecellio & Grogan, Inc.; Tarmac America LLC; Florida Rock Industries, Inc.; Sawgrass Rock Quarry, Inc.; and APAC-Florida, Inc. ("Industry Defendants"). Rinker Materials joined in that motion, and the use of the term Industry Defendants will include Rinker.

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In 1991 the limestone mining industry approached federal, state, and local government regulators with a sixty-year plan for mining in wetlands in southeastern Florida, in an area described by the industry as the "'Lake Belt," near Everglades National Park ("ENP") and related water conservation areas in western Miami-Dade County. The mining plan included significant new areas of mining as well as continued mining in areas previously permitted, and required the destruction of tens of thousands of acres of wetlands located above the Biscayne Aquifer (the County's sole source of drinking water) in order to reach the limestone rock below. The following year, the Florida Legislature established a Lake Belt committee to develop a plan that would "enhance the water supply for Dade County and the Everglades" as well as "maximize efficient recovery of limestone while promoting the social and economic welfare of the community and protecting the environment." Fla. Stat. § 373.4149. Later that same year, in anticipation of new permit applications and requests to extend previously issued permits, the United States Army Corps of Engineers ("Corps") announced its intention [*4] to prepare an Environmental Impact Statement ("EIS") for limestone mining "which could impact approximately 54,000 acres of wetlands by the year 2050 in northwest Dade County." AR65. n2

n2 Army Corps of Engineers' Administrative Record ("AR"), document number 65.

Over the next several years a number of issues were raised for discussion and analysis by interagency groups and other committees, e.g., risks to protected species, extent of need for locally-produced limestone products, potential contamination of the Aquifer, and threats of additional inverse condemnation lawsuits (one of the mining companies, Florida Rock, had successfully sued the United States in the mid-1980s on a claim that the denial of permits for mining in this area was an unconstitutional taking of property, recovering \$ 21 million for 1,560 acres n3). Analysis of these issues revealed that while the Lake Belt area contains large quantities of limestone, the mining would directly destroy wetlands, potentially contaminating millions of gallons [*5] of drinking water drawn daily from the Aquifer, and that the large deep pits which remain after mining would negatively affect groundwater seepage rates in and out of surrounding water areas, e.g., ENP; also, the remnant mining pits might compromise the larger program of Everglades restoration.

n3 The mining industry's most active representative and advocate throughout the administrative proceedings, Paul Larsen, reminded the Corps in January 1996 that "the only question remaining [in the Florida Rock takings litigation] is the value of the lands which will have to be paid by the U.S. Government. Based on this precedent, any other permit denials by the Corps in the Lake Belt Area would likely result in a determination in favor of the industry." AR257. At a meeting in July 1997 between DEP and the mining companies, land swaps (miners' land for State land) were discussed; the meeting also discussed that the land swap recommendation must include a discussion of the takings history in Pennsuco [i.e. Florida Rock litigation] wetlands and the potential for future takings litigation. AR498 (July 14, 1997).

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The Corps issued a final EIS in June 2000, AR614, which addressed the issuance of mining permits of fifty years each, for a total of 14,300 acres to be mined in the Lake Belt, including new and existing areas. The permit period later was reduced by the Corps to ten years, as an apparent compromise between the mining industry's urgent demands that new permits (approx. 8,400 acres) be issued concurrently with extensions of soon-to-expire existing permits (approx. 5,900 acres), and the objections to the mining plan that were being raised by federal and state agencies, local government, private organizations, and individuals. n4 The Corps issued a Record of Decision ("ROD") in April 2002, AR1028, collectively approving the new limestone mining permit applications and extending the term of the previously-issued permits, for a total of approximately 5,400 acres of mining to take place in ten years. n5 The new permits had an initial three year review period, after which the permits could be modified, if necessary. n6

n4 Indeed, the Corps and others referred to these permits as "bridging permits" which would permit the Corps quickly to grant extensions of existing permits and to approve new mining in a reduced number of acres, thereby allowing mining to continue until the Corps could develop an acceptable plan for the full fifty years of mining, i.e., a plan that didn't raise the significant wetlands impact, mitigation, protected species, hydrology, and water quality questions raised by the plan then under review.

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n5 In April 2001, after the permit period was reduced and the total acreage was reduced to 5,400, a senior Corps staff member explained to a senior member of United States Fish and Wildlife Service ("FWS") that some of the mining companies still had permits that were being extended but were not going to be mined in the next ten years, e.g., "Rinker's permit is 20 year permit." AR816. In February 2002, Corps staff observed that the ten year footprint would "actually . . . take 16 yrs to mine." AR978. The ROD explains that the mining in this "ten year" footprint "will not be mined out for 14 years," AR1028 at 67, to allow for certain companies that may need the additional acreage to continue mining, in the event that they mine more rapidly than the industry standard rate. At a hearing before the Court on October 22, 2004, counsel for the mining industry indicated that his clients "already had the right to mine most of the area" and that there wasn't much new area in the recently issued permits (which incorporated the existing permits). Evidently, most of the 5,400 acres at issue represented permit extensions/renewals and this ROD, which purportedly approves ten years of mining, seems to authorize far more.

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n6 Interestingly, the Revised Public Notice issued by the Corps on March 1, 2001 -- the last notice to the public regarding the permits prior to issuance of the ROD -- stated that mining "would not proceed after the review date unless the permits were specifically renewed with modifications, if needed," AR737, but the language of the ROD implies that the permits would continue to be valid after the review date, without a specific renewal, and that they only would be subject to "adjustment." AR1028 at 73.

Plaintiffs allege that the Corps erred in issuing the ROD and awarding the permits n7 to members of the limestone mining industry to conduct mining activities for ten years on 5,400 acres without, *inter alia*, updating the EIS that had been issued two years earlier. Further, they allege that the United States Fish and Wildlife Service ("FWS") failed in its duty to protect the wood stork, and other species whose habitats may be affected by the mining, by determining that the Corps' actions were "not likely to adversely affect" those species -- without FWS conducting its own full assessment [*9] of the situation. Plaintiffs have alleged violations of the Administrative Procedures Act ("APA"), 5 U.S.C. § 706; the Endangered Species Act ("ESA"), 16 U.S.C. § 1531 et seq.; the Clean Water Act ("CWA"), 33 U.S.C. § 1251 et seq.; and the National Environmental Policy Act ("NEPA"), 42 U.S.C. § 4321 et seq.

n7 The permits are issued for "dredge and fill" activities in wetlands, pursuant to Section 404 of the Clean Water Act, as discussed in greater detail below.

The Corps and FWS ("Federal Defendants") argue that the permitting process was handled correctly, over a multiple year period, with the involvement and subsequent concurrence of all major federal, state, and local agencies, and that deference ultimately must be shown to the federal agencies. They offer as evidence of their deliberative process that they ultimately reduced the originally requested permit period from fifty years to ten years, required that the [*10] permitted activities be evaluated after the first three years, and also imposed additional conditions in response to concerns raised by objectors. The members of the limestone mining industry ("Industry Defendants"), who were permitted to intervene in this action because of their economic interests in the subject of this litigation, argue that the permits were issued legally, with sufficient analysis of environmental impacts, and that a failure to permit this mining would result in an improper restriction on private property interests.

PROCEDURAL BACKGROUND

Plaintiffs initially filed their Complaint on August 20, 2002, in the United States District Court for the District of Columbia. The Federal Defendants filed an Answer and moved to transfer the action to this district, and members of the limestone mining industry filed a request to intervene as defendants. n8 On August 4, 2003, the Federal Defendants' motion to transfer was granted, and on December 30, 2003, this case was assigned to this Court. The Court granted the pending motion to intervene, and also granted Plaintiffs' request to amend their complaint to include claims based upon new information submitted to the [*11] Corps after the permits had issued (in light of all defendants' representations that they had no objection to such amendment). n9

n8 The permits were issued to a total of ten companies, all of whom had been mining in the area subject to previously granted permits. Only nine of the permits are at issue herein, however, because one of the companies receiving a permit, the Lowell Dunn Company, did not obtain its permit until October 2004, i.e., subsequent to the date of the agency action under review herein. Six of the nine companies receiving permits are represented in this action, and another, Continental Florida Materials, Inc., is represented indirectly through its membership in Defendant Miami-Dade Limestone Products Association, Inc., an organization which includes many of the Industry Defendants (See Memorandum in Support of Motion to Intervene, Exhibit D, in Docket Entry # 2). The six directly represented are Vecellio & Grogan, Inc. (also known as White Rock Quarries), Sawgrass Rock Quarry, Inc., Tarmac of America, Inc., APAC-Florida (also known as Pan-American Construction), Florida Rock Industries, Inc., and Rinker Materials of Florida, Inc. (also known as CSR Rinker Materials Corp.). The final two companies which obtained permits, Sunshine Rock, Inc., and Kendall Properties & Investments, are not parties to this action.

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n9 Plaintiffs' Motion to Amend the Complaint was filed on March 25, 2004. On March 30, 2004, the Corps responded to correspondence from one of the Plaintiffs and "requested that [Plaintiff] provide any additional information . . . regarding the wellfield, including the various documents . . . referenced in [Plaintiffs' submitted] report, as well as any other information you wish us to consider, so that we may address these and other pertinent concerns in a timely manner." SAR1879.

The Amended Complaint, filed April 6, 2004, seeks declaratory and injunctive relief and specifically alleges the following violations by the Corps: 1) insufficient analysis in the EIS (Count V, NEPA and APA); 2) failure to prepare a supplemental EIS prior to issuance of the ROD (Count V, NEPA and APA); 3) issuance of the permits without sufficient analysis or opportunity for public participation (Count I, CWA and APA), and without completing the formal consultation process required by the ESA or otherwise protecting listed species (Count III, ESA); and 4) deficiencies in the agency's response to Plaintiffs' complaints [*13] after issuance of the permits -- Plaintiffs had urged the agency to prepare a SEIS at that time (Count VI, NEPA and APA), and to stop the permitted activity pending a reevaluation of the agency's decision (Count II, CWA and APA). Plaintiffs also claim that FWS' concurrence in the Corps' decision that no formal consultation was required and FWS' failure to re-initiate consultation violated the ESA and APA (Count IV).

Summary judgment motions were briefed by all parties, and a full day hearing was held on October 22, 2004. The Federal Defendants subsequently notified the Court, on May 2, 2005, that the anticipated completion of the initial review process, specified in the permits to be conducted three years after the permits were issued, would be delayed. An additional hearing was held on September 30, 2005, at which time the Court posed several questions to counsel regarding the status of the pending initial review and issues related to the announced delay. Shortly after that hearing, Plaintiffs filed a request to dismiss, without prejudice, Counts II and VI of their Amended Complaint. n10 As there have been no objections filed as to the question of dismissing n11 these Counts, the [*14] Court will grant that request, noting that the claims may be renewed at an appropriate time.

n10 The Federal Defendants previously had argued that this Court lacked subject matter jurisdiction over Count II and that it would be premature to address the allegations in Count VI. Plaintiffs had argued that the Corps' written response to Plaintiffs' criticism of the issuance of the permits constituted sufficient "agency action" to trigger this Court's review of the Corps' response and, thus, that these Counts might be considered. As

the Court has granted Plaintiffs' motion to voluntarily dismiss Counts II and VI, these arguments will not be addressed at this time.

n11 The objections raised by the Federal Defendants and Industry Defendants primarily relate to whether Plaintiffs would be entitled to attorneys' fees at some point for these dismissed claims. This is an issue that need not be resolved at this time.

THE STANDARD OF REVIEW

Clarifying the Claims and Record to Be Reviewed

The [*15] Federal Defendants argue that there is no cognizable claim under the ESA against FWS for failing to engage in formal consultation (Count IV) -- but rather that such claims are to be reviewed under the APA -- a point which Plaintiffs concede. The Federal Defendants also argue that this Court lacks subject matter jurisdiction due to an alleged procedural defect regarding Plaintiffs' claim that the Corps failed to complete the formal ESA consultation process (Count III). The Court has examined the question of whether the Corps had sufficient notice of Plaintiffs' intent to sue, and has determined that since Plaintiffs' March 30, 2001, letter, AR793B, specifically incorporated their September 25, 2000, notice of intent to sue, and because it is clear from the record that the Corps had information from Plaintiffs as to their claims, that it thus would not be error for this Court to address the substance of the allegations now presented by Plaintiffs. As noted above, the Court has dismissed Counts II and VI. Therefore, in summary, the claims appropriate for review are those in Count I (Corps' issuance of the permits/ROD in compliance with CWA and APA), Count III (Corps' compliance with ESA), [*16] Count IV (FWS' compliance with APA), and Count V (Corps' preparation of EIS, and failure to issue SEIS pre-ROD, in compliance with NEPA and APA).

Generally, judicial review of an agency action is limited to review of the record available to the agency at the time of the final action which forms the basis of the complaint. There are only a limited number of situations which permit a reviewing court to review extra-record materials -- one of which is when an EIS is challenged, because such a challenge raises questions as to the sufficiency of the analysis contained therein.

Although the focus of judicial inquiry in the ordinary suit challenging nonadjudicatory, nonrulemaking agency action is whether, *given the information available to the decision-maker at the time*, his decision was arbitrary or capricious, and for this purpose the focal point for judicial review should be the administrative record already in existence, not some new record made initially in the reviewing court,' in NEPA cases, by contrast, a primary function of the court is to insure that the information available to the decision-maker includes an adequate discussion of environmental effects and alternatives, [*17] which can sometimes be determined only by looking outside the administrative record to see what the agency may have ignored.

Suffolk County v. Secretary of Interior, 562 F.2d 1368, 1384 (2d Cir. 1977) (district court did not err in accepting extra-record evidence and testimony, but clearly erred in concluding that such evidence and the record revealed NEPA violations in preparation of EIS for proposed leasing of offshore oil and gas resources) (citations omitted, italics in original), quoting *Camp v. Pitts*, 411 U.S. 138, 142 (1973).

The parties have submitted the Administrative Record of the Corps ("AR"), including its supplement, on a total of seventeen compact disks, with an index alone that is more than 100 pages in length. The record consists of thousands of pages of reports, correspondence, maps, studies, tables, handwritten notes, and electronic mail messages, spanning the time period of 1980 -- 2004. In addition, the Administrative Record of the FWS ("FAR") consists of eight large binders, and includes additional materials on computer disk. The decision documents themselves total more than 1,000 pages, e.g., the EIS is 992 pages, including [*18] appendices. Subsequent to the amendment of the complaint, the Federal Defendants submitted a certified Supplement to Administrative Record ("SAR"), containing an additional approximately 150 documents dated as recently as April 27, 2004, and beginning as early as July 24, 2000. n12

n12 As noted above, when complaints are raised about an agency action, the Court generally reviews only the administrative record and only for the period of time leading up to the challenged action. In this case, how-

ever, it appears that the Federal Defendants are offering an administrative record for review that goes well beyond the date of the issuance of the ROD, i.e., the action which is the primary focus of the Plaintiffs' allegations. Presumably, this was done in an abundance of caution in light of the multiple allegations in the Amended Complaint, and also to include documents which had been identified as missing from the original record, see AR1336.

The parties have attempted to introduce materials that simply did not exist [*19] prior to the date of the ROD. For example, Plaintiffs offered the report of Dr. Stavros Papadopoulos as to potential contamination of the Aquifer by mining activities, and his report was referenced in Plaintiffs' correspondence to the Corps dated February 16, 2004. SAR1317. According to Plaintiffs, Dr. Papadopoulos conducted a tracer dye study in April 2003 which suggests that cryptosporidium and giardia, microorganisms which negatively affect drinking water safety, can travel faster/survive longer in water than previously thought. n13 See Am. Compl., Attachment 1. This information clearly is material to a comprehensive analysis of environmental impacts from mining; however, because this report was completed after the date of the ROD, the Court only cursorily reviewed the information contained therein to determine whether the substance of the report suggested that the EIS failed to analyze adequately the contamination risks. n14 The recent submissions by the Industry Defendants present a source of material that not only was not in existence prior to the ROD, but also was not any part of the administrative record (not even the supplemental record). For example, excerpts from the Lake [*20] Belt 2004 Annual Report, dated January 2005, are offered to demonstrate that the mining industry recently has been conducting water quality monitoring studies. See Docket Entry # 59, Exhibit A, Attachment 1. n15 The Court appreciates the efforts by the parties to amplify the record evidence, but despite this intriguing information accumulated by the parties after the issuance of the ROD, the Court has made its determination on the issues based upon the record -- unless otherwise expressly noted -- with each alleged agency action reviewed in light of the appropriate agency's record through the date of that specific action.

n13 For example, the organisms could reach the restricted area around the Aquifer's wellfield pumping locations from as far away as five miles instead of the one-half mile setback figure that the Corps previously had applied. See Am. Compl., Attachment 1.

n14 The Industry Defendants promptly provided their own analysis of the Plaintiffs' information. According to a memorandum dated March 15, 2004, from MacVicar, Federico & Lamb, Inc., there were "significant problems with the modeling approach and assumptions [of Dr. Papadopoulos]" and the mining industry maintained its position that "permitted mining activities do not pose an imminent threat to the wellfield or public health." SAR1327 at 1818.

[*21]

n15 Although the Court has not relied on these recent materials (submitted by the Industry Defendants) for its analysis of the issues presented herein, it is possible that the inclusion of these materials in the Court's record may be of some assistance during appellate review, if such is required. The Court therefore denies the Plaintiffs' Motion to Strike these materials.

The Relevant Statutes, Rules, and Regulations

The standard for granting summary judgment is so often applied that it is rarely examined; a brief study is instructive here, particularly in light of the constraints on judicial review of agency actions such as those challenged herein. The burden on the moving party is a high one: the weight of all the evidence, considered in a light most favorable to the non-moving party, must demonstrate the lack of a genuine, triable issue of material fact. *Celotex Corp. v. Catrett*, 477 U.S. 317 (1986). Under this strict standard, summary judgment is appropriate only if the record evidence shows that the moving party is entitled to judgment as a matter of law. [*22] Rule 56(c), Fed. R. Civ. P. When the Court is reviewing an administrative agency's decision, the summary judgment standard must be applied consistently with the mandate that great deference be given to agency actions. n16

n16 To reconcile the principle of agency deference with the charge of taking all the evidence in the light most favorable to the non-moving party is particularly difficult as to the summary judgment motion filed by the Federal Defendants. Indeed, this Court has studied the arguments in that particular motion with exceeding care in order to abide by the directive that the Court consider all the evidence in a light most favorable to the non-moving party, i.e., Plaintiffs, without doing violence to the principle of agency deference, i.e., deferring to the moving party -- the Federal Defendants.

Plaintiffs have alleged violations of the APA and several environmental laws: NEPA, CWA, and ESA. The APA permits a court to set aside an agency's actions, findings [*23] or conclusions only where they are found to be "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law," 5 U.S.C. § 706(2)(A), or "without observance of procedure required by law," 5 U.S.C. § 706(2)(D). Courts have adopted the APA standard of review, specifically the "arbitrary or capricious" n17 test, as to each of the environmental statutes at issue herein. See, e.g., *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 375 (1989) (rejecting "reasonableness" standard of review in favor of APA's "arbitrary or capricious" standard as to NEPA claims); *Preserve Endangered Areas of Cobb's History, Inc. v. U. S. Army Corps of Engineers*, 87 F.3d 1242, 1249 (11th Cir. 1996) (applying "arbitrary or capricious" standard to CWA claim); *Fund for Animals, Inc. v. Rice*, 85 F. 3d 535, 547 (11th Cir. 1996) (narrow "arbitrary or capricious" standard applicable to ESA claims).

n17 Some courts describe the test as whether the agency action was "arbitrary and capricious," while others describe the test as "arbitrary or capricious." Although the distinction may be of little significance, this Court has applied the test as stated in the APA, i.e., was the agency action "arbitrary" or "capricious" (or "an abuse of discretion" or "otherwise not in accordance with law"). 5 U.S.C. § 706(2)(D). merely colorable or not significantly probative is not sufficient. *Id.*

[*24]

"The court shall not substitute its judgment for that of the agency." *Preserve Endangered Areas of Cobb's History, Inc. v. U.S. Army Corps of Engineers*, 87 F. 3d 1242, 1246 (11th Cir. 1996), citing *Citizens to Preserve Overton Park, Inc., v. Volpe*, 401 U.S. 402, 416 (1971). The principal purpose of the deferential review is "to protect agencies from undue judicial interference with their lawful discretion, and to avoid judicial entanglement in abstract policy disagreements about which courts lack both expertise and information to resolve." *Norton v. Southern Utah Wilderness Alliance*, 542 U.S. 55, 66 (2004) (court can only compel agency to act when the agency had an enforceable duty to do so).

This deferential standard of review does not in any way suggest a "rubber-stamping" role for the judiciary; rather, the Court must "immerse" itself in the evidence in order to determine whether the agency decision was rational and based on consideration of the appropriate factors. n18 See, e.g., *Ethyl Corp. v. Environmental Protection Agency*, 541 F.2d 18 While the evidentiary burden on the movant is great, the opposing party [*25] has a duty to present affirmative evidence, i.e., to identify supporting evidence in this administrative record, in order to defeat a properly supported motion for summary judgment. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986). Evidence that is 1 (D.C. Cir. 1976) (en banc) (EPA had rational basis for promulgating regulations to reduce lead content of gasoline because lead emissions presented significant risk of harm).

The close scrutiny of the evidence is intended to educate the court. It must understand enough about the problem confronting the agency to comprehend the meaning of the evidence relied upon and the evidence discarded; the questions addressed by the agency and those bypassed; the choices open to the agency and those made. The more technical the case, the more intensive must be the court's effort to understand the evidence. . . . The enforced education into the intricacies of the problem before the agency is not designed to enable the court to become a superagency that can supplant the agency's expert decision maker. To the contrary, the court must give due deference to the agency's ability to rely on its own developed expertise.

[*26] Id. at 36. Importantly, deference to an agency's decision is not required if the agency has failed to follow its own regulations. "The failure of an agency to comply with its own regulations constitutes arbitrary and capricious conduct." *Simmons v. Block*, 782 F.2d 1545, 1550 (11th Cir. 1986) (citation omitted) (agency did not follow its own regulations in accepting cash bid that was lower than credit bid offered pursuant to sale of surplus property); see also, *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999) (agency decision not entitled to deference since decision violated National Forest Management Act and its implementing regulations by not gathering species data prior to approving timber sale).

n18 While the evidentiary burden on the movant is great, the opposing party has a duty to present affirmative evidence, i.e., to identify supporting evidence in this administrative record, in order to defeat a properly supported motion for summary judgment. *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242 (1986). Evidence that is merely colorable or not significantly probative is not sufficient. Id.

[*27]

The narrow scope of this Court's review does not place blinders on the Court nor does it reign in the Court's authority once it has determined that an agency has violated its own regulations. Indeed, the deferential judicial review of an agency's actions should oblige that agency to disclose fully the reasoning behind its decisions in order to demonstrate clearly that such decisions were issued in compliance with governing laws -- such candor would ensure that our nation's environmental laws are respected.

ANALYSIS

I. INTRODUCTION

Although the permits at issue are described as being for 5,400 acres of mining over a ten year period, according to Plaintiffs, the Corps' permitting decision was simply "the first phase of a much larger plan to transform more than 15,000 acres of Everglades wetlands to mining pits over the next several decades." Am. Compl, at 2. Plaintiffs argue that the Corps' reliance on reports prepared by or paid for by the permit applicants, i.e., the mining companies, improperly influenced the environmental analysis required by NEPA, the CWA, and the ESA -- particularly as to the consideration of whether there were other available and environmentally [*28] preferable sources of limestone. Plaintiffs claim that the Corps violated NEPA by failing to fully consider the "no mining" or "curtail future mining" alternatives to approving the mining plan, and that the permits should not have issued because the permit applicants failed to demonstrate, as required by the CWA, that there were no practicable alternatives to permitting mining in the Lake Belt. According to Plaintiffs, the Corps' EIS failed to analyze all direct, indirect and cumulative impacts resulting from the mining -- particularly as to groundwater seepage, contamination of drinking water pumped from the Aquifer through well-heads in the Lake Belt, the destruction of endangered wood stork habitat, and increased urbanization -- and that the ROD failed to provide an adequate discussion of what mitigation would be required for the inevitable adverse effects of the mining, e.g. the conversion of thousands of acres of wetlands into mined-out deep quarry pits.

Plaintiffs also attack the ROD, which included the Corps' conclusion that the permit action would "not have a significant impact on the quality of the human environment," for failing to adequately explain why mining was being [*29] approved despite the strong objections that had been raised by several governmental agencies and others. Plaintiffs argue that the Corps' failure to hold a public hearing or to encourage public participation in the permitting process violated the CWA and NEPA; for example, Plaintiffs note that the public never received notice of the permits' ten "special conditions" until the permits were issued, even though those "special conditions" revealed compromises as to the transfer of mined property to the public and other issues that had been the subject of substantial criticism.

In addition, Plaintiffs claim that the Corps and FWS erred by deciding not to enter into formal consultation under the ESA regarding the potential impact on the wood stork population, and by failing to re-initiate consultation after the receipt of additional information on the wood stork's habitat, as well as by not taking required steps to protect other species.

The Federal Defendants assert that the long agency review process was handled correctly and that Plaintiffs have not provided evidence that demonstrates that the reports provided by the mining industry were biased or that contradicts the industry's reports. [*30] Mining has been ongoing in the Lake Belt area for decades, according to the Federal Defendants, and the Corps was required to consider the "economic hardship on the mining industry" and the "legal issues" that would arise if the permits were not issued. Reply Brief, Docket Entry # 42, at 4. According to the Federal Defendants, the EIS provided a comprehensive environmental analysis, and the ROD provided a sufficiently detailed mitiga-

tion plan; they also argue that the subsequent decision to reduce the amount of acres and the length of time for mining under the permits satisfactorily addressed the concerns that had been raised by objectors. The Federal Defendants also claim that the evidence regarding the wood stork population in the area does not establish that its habitat will be negatively affected, nor were any other species going to be harmed by the mining. As the Corps had received extensive written comments throughout the deliberative process, the Federal Defendants claim that a public hearing was not necessary; they also argue that a number of public workshops and meetings were taking place regarding the Lake Belt, and that they did not have to do anything further to encourage [*31] public participation.

At the hearing in September 2005, the Court heard argument from the parties as to whether it would be prudent to stay consideration of the undeniably ripe issues until completion of the initial, i.e., three-year, review of the permits. n19 No consensus emerged, and the Court determined that it would be improper to delay decision on these issues -- particularly if such delay were to be perceived as an attempt by the Court to provoke a particular agency action. This Court's responsibility is simply to determine whether the Federal Defendants fulfilled their duties and not to determine whether a remand is "practical" in light of subsequent developments. n20

n19 The attractiveness of that approach was that in the event that the Corps ultimately determined that the permits should be revoked, i.e., that the mining must cease at the conclusion of the initial review, then a remand of this matter -- which the Court had begun to determine would be necessary based upon the existing record -- might not have been necessary.

n20 The presence of the recent materials in the court record certainly tempts the Court to review them in order to determine whether (or how) any of the troubling issues have been addressed, but such review would be improper and, in any event, probably would not obviate the remand which the Court reluctantly has concluded is required in this case. This Court will, of course, entertain appropriate motions from the parties if circumstances develop which require modification of this order.

[*32]

The Court has studied this case very carefully, and is disturbed by the fact that so many strong objections to the issuance of these permits had been raised by other governmental agencies, as well as by individuals, and that the administrative record reveals an urgency and pre-determination about the decision-making process that may have resulted in a less than full consideration of important issues. Most importantly, such a rushed approach n21 to the agencies' specifically charged duties is contrary to the dictates of the federal environmental laws, both procedurally and substantively, and leaves this Court with the inescapable conclusion that the decision-making process suffered from substantial deficiencies which resulted in agency decisions that were not in accordance with these laws.

n21 The casual observer might question the Court's characterization of the process presently under review as "rushed" -- particularly in light of the decade that passed between the Corps' 1992 announcement related to the industry's requests and the ultimate decision to issue the permits in 2002. Indeed, at the commencement of the Court's review it seemed that such a lengthy process certainly would compel the conclusion that the review was comprehensive enough to satisfy the environmental laws; it was only upon a deeper examination of the record that the Court discovered that many significant issues fell prey to a "rushed" and inadequate analysis, despite the number of years that passed.

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At both the first and the supplemental hearing on the summary judgment motions, the Court heard extensive argument from learned counsel for all parties. Also, in addition to reviewing the decision documents and the parties' briefs thoroughly, the administrative records of both the Corps' and the Fish and Wildlife Service have been studied in great detail. The Court's review has disclosed several areas of critical concern in the manner in which the agencies proceeded with respect to these permits. These areas are outlined below, and then addressed in more detail later in this opinion.

First, there is an underlying theme of pre-determination evident in the frequent reference by the Corps' staff to the historical presence of mining in the area, the Corps' swift rejection of suggestions that mining be stopped or limited, and the omnipresence of mining representatives and their reminders that the Florida legislature's creation of a Lake Belt Committee indicated the state's support for mining; additionally, the record reveals that Corps staff were fully aware

that one of the permit applicants, Florida Rock, already had filed a successful regulatory takings challenge against the Corps in [*34] the early 1980s which resulted in a significant settlement in 2001, after the EIS was published. n22 (The ROD describes the case and settlement. AR1028 at 37.) To the extent that this sense of inevitability permeated the agencies' decision-making processes, there is a high likelihood that procedural safeguards, such as those enshrined in NEPA and the CWA, were overlooked or viewed as unimportant in light of the expected approval of the mining. The Court also is concerned about the perception, suggested by comments of Corps staff, that the Corps was "negotiating" with the miners, rather than serving as the regulatory agency n23 charged with enforcement of this country's environmental laws. n24 The Court is mindful of the challenges faced by the agencies, many of whose employees clearly labored long hours to attempt to protect our natural resources while meeting the demands of this well-organized industry, but the Court cannot ignore the obvious: the Corps did not exercise the full range of its authority, but rather allowed negotiations with miners to result in procedural shortcuts and other abuses of the discretion that has been entrusted to the agency. n25

n22 A year before the settlement was reached, a senior Corps staff member wrote to DEP staff and others, observing that "the feds have tried to settle with Florida Rock. I think that has hurt these [permitting] efforts." AR710. In November 1996, an attorney for the Corps had asked for advice from the Department of Justice as to whether a settlement with Florida Rock was "worth the price" and questioned "how much money . . . would flow out of the federal treasury to settle the takings litigation." AR337.

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n23 The Court questions what role the threat of additional takings litigation played in the permitting decision, and whether the decision to issue the permits would have been different if sufficient funds (in the budget of a land-acquiring agency) existed to acquire the lands owned by the miners rather than grant the permits. The Corps' regulatory program "does not have the authority under Section 404 of the Clean Water Act to undertake land acquisition. . . . and the costs of the miner's land alone [41.5 square miles] will probably exceed \$ 1 billion. . . ." AR637. "The Corps is not a land management agency and does not have the necessary congressional authorization or funding to acquire conservation lands." AR1028 at 37.

n24 For example, in early 1997, a Corps staff member noted in a message to FWS staff that the mining consortium was "pretty fragile" and that "right now there are lots of unhappy folks . . . so if we could report some progress towards a consolidated federal position, I think that would help extinguish some of the flames" -- apparently suggesting that FWS should agree to the 2.5:1 mitigation ratio (i.e., 2.5 acres of restored wetlands for each 1 acre destroyed) that had been generally accepted by other agencies but which was lower than FWS had requested. AR464. One year later, when the mining industry walked out of an interagency meeting because, upset that negotiations weren't going their way, Corps representatives still pursued the industry to "see if they want to continue working on this." AR560, AR558. In July 2001, Corps staff noted concerns that the coalition formed by the mining industry (to seek a collective permit) might "collapse [and our workload will surely increase]." AR843. Finally, in March 2002, senior Corps staff agreed to modify mitigation calculations "to see if this takes care of the miners concern [since the miners were unhappy with the Corps' method of updating mitigation requirements on the permits to be renewed]." AR1009.

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n25 It is abundantly clear from the record that this process involved many experienced and very well-intentioned public servants, striving to find an acceptable and correct solution to a complex problem in the face of consistent pressure from the permit applicants and their representatives, as well as a deadline imposed by the Florida Legislature. Advocates for protecting the environment by minimizing mining also participated in the process, although to a significantly lesser extent than the mining industry -- and each referred to the other as "special interests." AR914, AR549/FAR123.

Second, the urgency of the Corps' actions, which is detectable at different points in the record, may have resulted in decisions that were arbitrary or capricious. For example, this urgency may have compromised the ability of objectors,

including agency staff and members of the public, to fully voice their concerns -- thus restraining the mandatory agency coordination and public participation that are vital elements of the federal environmental laws. The most clear evidence of the timing pressures faced by the Corps [*37] is disclosed in the EIS, which reported that if the Corps did not issue permits for mining before September 30, 2000, "then the mitigation fee [\$.05 per ton of rock mined in the Lake Belt] will be suspended until re-adopted by the Florida Legislature." AR614 at 100. The Corps' earlier attempts to reach agreement with the miners on a higher mitigation fee (of \$.08 per ton, AR560) had been unsuccessful, so the effect of this state legislation may have been to push the Corps to grant the mining permits, and to do so promptly, rather than risk the ability to collect substantial funds from the mining industry to pay for the required mitigation. This area of concern was expressed in communications between the agencies assembling the mining and mitigation plans and may have caused the FWS and EPA to decide not to pursue their objections further, even though their areas of concern apparently remained unresolved, e.g. potential groundwater contamination, adequacy of mitigation plan, etc. It is unclear whether each of the agencies' objections actually had been addressed fully, or whether there was a concerted effort to reach agreement in order to keep the process moving toward granting the [*38] permits with a mitigation fee in place, or whether -- as Plaintiffs suggest -- the objections were not pursued further because of fear of reprisals within and between agencies. n26 Finally, the Corps' failure to take the time to hold a public hearing and its lack of meaningful engagement with the general public, i.e., not just the permit applicants or select environmental advocacy groups, stand as further evidence of the regrettable effects of rushing through such important environmental decisions. The examples above highlight the circumstances that lead to the ultimate and unfortunate result: certain of the agencies' decisions lacked a rational basis and were not supported by the record before the agency at the time.

n26 While Plaintiffs argue that this change in the position of FWS and EPA (in 2001 and 2002, respectively) is more than coincidental to a national change in political administrations, there is no record evidence to support that assertion and this Court is unwilling to draw such a conclusion upon the present record, particularly in light of the timing of the agencies' earlier objections -- some of which were strenuously raised by EPA and FWS after the change in administrations took place in early 2001.

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Third, the rush to finalize the permitting decision also may have compromised the analysis and scientific review that is vital to this type of endeavor, particularly as to the determination of an environmental baseline against which to measure impacts regarding groundwater seepage, and also as to the study of potential contamination of the Aquifer. One interagency group's report makes several references to the compressed time schedule in which it was required to perform its analysis as to alternative scenarios for the mining, noting that very little empirical data was able to be accessed and analyzed. n27 The Corps' rush to issue the EIS (in order to be able to meet the September 30, 2000, permit deadline imposed by the Florida Legislature) may explain the notable absence of updated relevant scientific analyses. For example, of the 38 scientific references cited in the EIS, nearly half (sixteen) were at least twenty years old by the time that the EIS was issued, and only one had been published within the past five years. AR614 at 106. n28 Also, the Federal Defendants admit that they did not engage in formal consultation according to the ESA as to any species, despite the confirmed [*40] presence of the endangered wood stork in the Lake Belt. Most importantly, Miami-Dade County, through its Department of Environmental Resources Management (DERM), raised strong objections to the mining and began the process of reviewing its wellfield protections (which prohibit mining within a certain distance from the well-heads in the Lake Belt area), and updating its wellfield protection ordinance, Chapter 24-12.1, Code of Miami-Dade County, to ensure that the setbacks were sufficient to accommodate the increased risks presented by the additional mining, AR1028 at 54, but the permits were issued before the County completed its study, and without the Corps conducting its own study. n29 The County's request for a public hearing, submitted in July 2000, AR654, was not even responded to until it was denied by the Corps in April 2002, AR1023. This failure by the Corps to adequately consider relevant factors mandates a remand to the agency for further deliberations.

n27 "Data pertaining to hydrology, water quality, and engineering models, while considered valuable, were impossible to develop given the [short] three month schedule." AR614 at 841.

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n28 The reports contained in the Appendices of the EIS (issued in June 2000) were of more recent vintage, although they did not necessarily rely on more recent data. For example, Appendix A, "Hydrologic Analysis of Limestone Mining South of Tamiami Trail Between Krome Avenue and the L-31N Canal," submitted to the Lake Belt Advisory Team to the South Florida Ecosystem Restoration Working Group, April 24, 1997, on behalf of Kendall Properties and Investments, by private consultants MacVicar, Federico & Lamb, Inc. The report was updated in February 1998, see AR614 at 244, and was based upon an October 1997 Lake Belt Model developed by SFWMD (which used June 1 to Nov. 30, 1969, for "wet condition" and Jan. 1 to May 31, 1989 as "dry condition").

n29 It may be that the preliminary tests conducted as part of the initial review indicate no negative impact as of yet, as has been suggested by the recently submitted Memorandum for Record, see Federal Defendants' Notice of Filing, dated September 27, 2005, but this Court must find in the administrative record sufficient guarantees that the agency examined the long-term impacts of mining on top of the Aquifer, regardless of any subsequent short-term testing results. To require anything less would indicate that this Court had ignored the public interest protected by the CWA or had allowed the Corps to do so.

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Perhaps most significantly, the record does not reveal sufficient support for the Corps' decision that there were no practicable alternatives to mining, nor have the briefs submitted by the parties satisfied the Court's concern on this point. The regulations implementing the CWA, found at 40 C.F.R. 230.10, prohibit the issuance of a dredge and fill (into wetlands) permit if, *inter alia*, practicable alternatives exist. An alternative is "practicable" if it is "available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes." 40 C.F.R. 230.10(a)(2). There is a rebuttable presumption that practicable and environmentally preferable alternatives exist if the activity being proposed "does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not water dependent)." 40 C.F.R. 230.10(a)(3). In this case the Corps admittedly failed to make the presumption that a practicable and environmentally preferable alternative existed. n30 The Corps disregarded this regulatorily [*43] mandated presumption because it determined that the proposed mining was water-dependent since the applicants had requested to mine in these specific wetlands; but this circuitous reasoning is improper. If the Corps had made the proper presumption, the miners would have been required to overcome the presumption by proving convincingly either that there were no practicable alternatives or that other alternatives, e.g., mining in other locations in South Florida, northern Florida, Alabama, etc., would have a more adverse impact on the environment. The Court has reviewed in detail the 1999 report of Paul Larsen, which was submitted on behalf of the mining industry, and upon which the Corps based its entire analysis of practicable alternatives. n31 After reviewing that report, the Court does not find record evidence to overcome the presumption that should have been applied by the Corps. n32 That is, my reading of the 1999 report and the Corps' discussion thereof, is that there appear to be practicable alternatives to mining in the Lake Belt; thus, if the Corps had not failed to apply the presumption that is mandated in the CWA regulations, such alternatives would have been investigated [*44] more rigorously and, perhaps, determined to be practicable and environmentally preferable.

n30 "In this case, the proposed activity is the extraction of particular mineral resources located in particular wetlands. It would be meaningless to state that this activity could be carried out elsewhere. Thus, the Corps properly did not apply a presumption that practicable alternatives were available." Federal Defendants' Reply, Docket Entry # 42, at 16.

n31 See "Analysis of the Practicability' of Non-Lake Belt Alternative Sources to Supply Florida's Demand for Basic Construction Materials." AR583 (also included with EIS as Appendix I, AR614 at 923).

n32 It bears mention that the information in this report should have been tested independently and rigorously by the Corps, since it was commissioned by an interested party in the permitting process. Indeed, the report's author, Mr. Larsen, was hired by a party whose interests would have been in direct (financial) conflict with a recommendation that mining be relocated from the Lake Belt.

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While the Corps refers to its duties under the environmental laws throughout the decision documents, it also has stated that it must "weigh the rights the property owners have to use their property, the public need for material to con-

struct houses, roads, schools, and other infrastructure, and potential ecological and economic impacts of [relocating mining to other locations]." AR637. Shifting the focus to the situation it inherited, and apparently attempting to argue that prior land use approvals for mining in or near the Lake Belt area left the Corps with little choice but to approve continued mining, the Corps notes that "decisions by the State of Florida, by Miami-Dade County and by other agencies contributed to the original decision by the landowners to locate their mining in this area." Id. The record, taken as a whole, reveals that the weight given by the Corps to the above concerns was such that it overwhelmed the significant environmental factors, regarding the adverse impact of the mining in the Lake Belt, that should have been given greater weight.

To summarize, my specific concerns regarding the Corps' determination that the mining required siting in these wetlands, [*46] and the agency's consequent failure to presume that a practicable (and environmentally preferable) alternative existed, compel my conclusion that this case must be remanded to the agency for further analysis. The other issues identified above, e.g., the failure to conduct formal consultation under the ESA, the lack of disclosure of important information to the public, the rush to grant the permits before the County completed its wellfield protection studies, etc., offer additional support for the Court's conclusion, as will be explained in more detail below. The Court has provided this rather lengthy introduction to assist the parties, and now turns to an expanded analysis of the points summarized above.

II. THE FACTS n33

n33 This is a summary of facts found in the administrative record and which essentially are undisputed. The Court has taken notice of items of factual interest in opinions by other courts (particularly the takings decision reported at *Florida Rock Industries, Inc. v. U.S.*, 791 F.2d 893 (Fed. Cir. 1986), which was included in the Corps' administrative record, AR9), and has referenced selected outside sources but only to the extent that such information provides a general context for the review of the administrative record presently before the Court.

[*47]

Southeastern Florida's miles of densely populated oceanfront are matched in significance by thousands of acres of wetlands lying several miles to the west of the coastal urban areas. The wetlands are part of the Everglades ecosystem, stretching south from Lake Okeechobee to the Florida Keys, which has received international attention not only because of its ecological uniqueness, but also because of an unprecedented multi-billion dollar restoration program initiated in the past several years. n34 Restoration of the ecosystem is required because of the harmful effects resulting from decades of development in the area, n35 spurred in part by the Corps' own Central and Southern Florida (C&SF) Project, which provided, among other benefits, flood control for the coastal areas, thus allowing for their extensive urban development. n36 The C&SF Project Comprehensive Review Study ("Restudy"), authorized by Congress in the 1992 Water Resources Development Act (WRDA) with specific guidance provided in Section 528 of the 1996 WRDA, AR1152, examined the entire ecosystem and led to the creation of the Comprehensive Everglades Restoration Program (CERP). The CERP study area, encompassing 18,000 [*48] square miles, includes 66,400 acres of marshes, reservoirs and recharge areas in Palm Beach, Broward, and Dade Counties, described as the East Coast Buffer, along with Water Conservation Areas (WCAs) to the west, i.e., constructed marshes designed to hold surface water for multiple purposes, including flood control, groundwater recharge, and fish and wildlife enhancement. n37 The CERP is designed to provide an environmental buffer to the Everglades, seepage reduction for the water conservation areas, water supply benefits through groundwater recharge, and the enhancement of thousands of acres of wetlands that once comprised the Everglades. AR618 at 226. Presumably this program will lead to greater health for the multiple species which utilize these wetlands, including the endangered wood stork and threatened American alligator, both of which have been observed in the Lake Belt area. AR614 at 40-50, 672, 688-96. It should be noted that the CERP is only a study or policy document and does not itself authorize any projects, but rather recommends projects. Federal Defendants' Reply brief, Docket Entry # 42, at 9.

n34 The federal government has declared "strong support" for the 30-year, multi-billion dollar Comprehensive Everglades Restoration Plan (CERP), described as "the most comprehensive and ambitious ecosystem restoration project ever undertaken in the United States." White House Press Release, January 9, 2002, available at: <http://www.whitehouse.gov/news/releases/2002/01/20020109-3.html>. The estimated cost of the first phase of

CERP is \$ 7.8 billion. AR1152 ("Final Integrated Feasibility Report and Programmatic Environmental Impact Statement, Central and Southern Florida Project Comprehensive Review Study, April 1999, page vii).

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n35 For example, multiple species have been negatively affected because of changes in the natural water patterns and the loss of almost half of the historic Everglades. "Animals living in the Everglades would read' the water patterns, and know' where to go to find the food and water that they needed for successful reproduction and survival under a range of natural conditions. It was the combination of connectivity and space that created the range of habitats needed for the diversity of plants and animals. . . . Wading birds, perhaps more than any other animal, assess the quality of habitats over the entire basin of south Florida wetlands, before making decisions' about where and when, or even whether, to nest." AR1152, page iii, xi-xii.

n36 "The C&SF Project, which was first authorized by Congress in 1948, is a multi-purpose project that provides flood control; water supply for municipal, industrial, and agricultural uses; prevention of saltwater intrusion; water supply for Everglades National Park; and protection of fish and wildlife resources throughout the study area. The primary system includes about 1,000 miles each of levees and canals, 150 water control structures, and 16 major pump stations." AR1152 at page 1-10. Historically, water flowed generally to the southwest and contributed to surface and groundwater flows in the Everglades. After the C&SF project, flood control and water delivery were reconfigured to serve the urban needs of South Florida, and excess rainfall that used to flow west now flows east toward the ocean. The levees, canals, and water control structures "fundamentally altered the hydrology of the Everglades, changing the natural sheet flow of ground and surface water." South Florida Water Management Dist. v. Miccosukee Tribe of Indians, 541 U.S. 95, 100 (2004).

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n37 The WCAs consist of surface water management impoundments, covering 1,372 square miles, with a combined water storage capacity of 1.8 million acre-feet, acting as long hydroperiod sawgrass marshes which store and convey freshwater for groundwater recharge and reduction of hurricane-induced wind tides, in addition to those uses mentioned above. AR618 at 388.

All of these restoration efforts are particularly important to the health of the Biscayne Aquifer, an underground freshwater reservoir lying beneath most of Miami-Dade County and the primary source of drinking water for South Florida. AR1028 at 4. In October 1979 EPA officially designated the Biscayne Aquifer to be the sole or principal source of drinking water for all municipal water systems [in southeast Florida]." AR1176. The Aquifer, made of limestone-bearing materials such as shells, coral, and sand, begins beneath the wetland soils and extends to a depth of approximately 100 feet. AR614 at 27, AR1028 at 5. Miami-Dade County has taken steps to study and protect the quality of this important freshwater source, n38 and operates several [*51] public wells in an area known as the Northwest Wellfield, which is described as "the largest drinking water wellfield in the State." AR617 at 5. n39 The fifteen wells located in the Northwest Wellfield collectively draw water up from the Aquifer to supply 40% of the County's drinking water. n40 AR617 at 5, AR1028 at 5. One of the County's most important concerns is that the Aquifer not be subject to reclassification as "groundwater under direct influence" of surface water-as such a reclassification (from the present classification as "groundwater") n41 would require a costly modification of the County's regional water treatment facilities. AR1175. n42 Such modifications would be required in order to control the spread of disease-causing bacteria and other pathogens. n43

n38 In 1985 the Dade Wellfield Protection Study Group, established by the Dade County Commission, produced a report on the topic, and designated protection zones around the wellfields. The County issued a report on August 16, 2000, as part of its ongoing efforts to verify whether the existing setbacks restricting mining from areas near the wellfield were enough to avoid risks of contamination. AR1175.

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n39 Another County wellfield, the West Wellfield, is located immediately east of the mining occurring south of Tamiami Trail. AR1028 at 53. The Court has addressed the wellfield contamination risks only as to the Northwest Wellfield, but this does not indicate that mining poses no risks to the West Wellfield.

n40 "The Northwest Wellfield is a major uncontaminated source of municipal drinking water for Miami-Dade County, Florida. The wellfield consists of fifteen wells that supply a current demand of 150 million gallons per day (MGD) and a planned future capacity of 225 MGD. . . . The South Florida Rockmining Coalition is proposing to mine 8,400 additional acres, totaling almost 20,000 acres eventually mined out in the Lake Belt area. This would leave most of the Northwest Wellfield occupied by open water." AR1175 (technical report prepared by DERM, August 16, 2000).

n41 "The surface water treatment rule promulgated in 1989 by EPA requires that public water supplies derived from groundwater under the direct influence of surface water' (GWUDI) receive the same treatment as water supplies derived directly from surface water." AR1175 (technical report prepared by DERM, August 16, 2000).

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n42 Upgrading the water treatment plants to treat for disease-causing organisms would cost approximately \$ 250,000,000. AR654.

n43 "Microorganisms that during their life cycle form spores, cysts, or oocysts . . . can survive for long periods in the environment and can be very resistant to conventional treatment practices at drinking water facilities. Giardia, Cryptosporidium, and relatives such as Cyclospora and Microsporidium can survive for months in some water environments. Cryptosporidium can survive greater than six months in some water environments and is also resistant to conventional chlorination. Additionally, there are other pathogens emerging as a concern to municipal drinking water supplies. One such pathogen is a bacteria, Mycobacterium avium, which is also chlorine resistant and, unlike Giardia and Cryptosporidium which need a host to reproduce, regrows in the environment." AR1175 at p.37 (DERM technical report, cites omitted).

The "Lake Belt" n44 area includes 57,515 acres, or 90 square miles, AR1028 at 4, of "ecologically pristine, degraded, and developed areas" of wetlands, [*54] AR614 at 382, which form the northwestern edge of Miami-Dade County and border the eastern edge of Everglades National Park (ENP) and Water Conservation Area 3B (WCA3B). n45 See map, **Appendix A** to this opinion, AR614 at 16. The entire Lake Belt area is within the "Lower East Coast" region of the Restudy, see AR1152; CERP plans for the area include conversion of two quarry pits into reservoirs ringed with subterranean seepage barriers to protect the underlying Aquifer. n46 The Northwest Wellfield is located in the Lake Belt (toward its eastern border).

n44 The Sierra Club (one of the Plaintiffs herein) objected "to the euphemism of a so-called Lake Belt Plan" and complained about the use of the attractive term "when what is actually being evaluated is an immense system of quarry pits that cause considerable adverse ecological effects and provide minimal, if any, ecological values." FAR80. To be consistent with the administrative record, the Court has used the term "Lake Belt" throughout this order, but expresses no opinion as to whether the term accurately describes the oddly linear and deep water-filled pits, visible in photographs in the record, that remain after the wetlands are destroyed by mining.

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n45 "The area is generally bounded by Krome Avenue to the west, the Florida Turnpike to the east, the Miami-Dade/Broward County line to the north, and Kendall Drive to the south." AR1028 at 2. It also is reported that the Urban Development Boundary (UDB) forms the eastern boundary of the Lake Belt. AR610 at 22.

n46 "Two limestone quarries in northern Miami-Dade County will be converted to water storage reservoirs to supply Florida Bay, the Everglades, Biscayne Bay and Miami-Dade County residents with water. The 11,000-acre area will be ringed with an seepage barriers [sic] to ensure that stored water does not leak or adjacent

groundwater does not seep into the area. . . . This feature includes canals, pumps, water control structures, and an in-ground storage reservoir with a total capacity of approximately 90,000 acre-feet located in Miami-Dade County. The initial design of the reservoir assumed 4,500 acres with the water level fluctuating from ground level to 20 feet below grade. A subterranean seepage barrier will be constructed around the perimeter to enable drawdown during dry periods, to prevent seepage losses, and to prevent water quality impact due to the high transmissivity of the Biscayne Aquifer in the area. The reservoir will be located within an area proposed for rock mining. . . . The purpose of this feature is to capture and store a portion of the stormwater runoff from [nearby canals] and to provide water deliveries to Biscayne Bay to aid in meeting salinity targets." AR1152 at ix, 9-19, 9-20.

[*56]

Mining in the Lake Belt area has been ongoing since the 1950sⁿ⁴⁷ and, as a result, approximately 5,000 acres of quarry pits already existed at the time the ROD was issued in 2002, i.e., approximately 10% of the Lake Belt area already was a quarry pit. AR1028 at 58. Indeed, rock mining and agricultural use already had altered approximately 30% (i.e., approx. 17,254.5 acres) of the Lake Belt, primarily affecting the wetlands lying to the east of the Dade-Broward Levee, as well as those wetlands south of Tamiami Trail, i.e., closest to the border of Everglades National Park. In the remaining unaltered 70% of the area, the invasive and destructive melaleuca plant is expanding rapidly in a westerly direction, AR1028 at 4, due -- at least in part -- to the actions of the mining industry itself over the past decades.

ⁿ⁴⁷ "Companies have acquired property and mined limerock from open-pit quarries in the area now known as the Lake Belt since the 1950s under Miami-Dade County zoning and wetland permitting regulations." AR1028 at 35. "Rinker has purchased or leased thousands of acres of property in the Lake Belt area. Most of Rinker's property has been owned for many years. . . . Rinker's flagship operation is the FEC Quarry. This quarry has been in continuous operation since the early 1970s and is the largest aggregate quarry (by volume) in the United States -- producing approximately 13 million tons of finished aggregate annually. . . . The FEC quarry also has a concrete pipe plant, a concrete redi-mix plant and a concrete block manufacturing plant. . . . The SCL quarry was opened in 1958 by LeHigh Cement and was purchased by Rinker in 1976. Since Rinker's purchase, SCL has been in continuous operation -- the Miami Cement Mill operates 24 hours a day, seven days a week. . . . Rinker is also the operator of the Kendall Krome quarry. This quarry excavated limestone for the production of Portland cement from the 1950s until the late 1970s. While cement is no longer produced at Krome, the aggregate portion of the operation continues. . . ." See Affidavit of Rinker President, Exh. 1 to Docket Entry # 34.

[*57]

Melaleuca, which has been declared a Federal Noxious Weed and a Florida Prohibited Aquatic Plant, negatively affects wetland functions and "threaten[s] the core of the Everglades ecosystem." AR614 at 39-40, 382-83, 419. ⁿ⁴⁸ Rock mining (and construction of required roads and large work pad areas) is one of the "abiotic factors that have influenced the current distribution of the cover types [including melaleuca] in the Lakebelt Region," AR614 at 38-39, 383. This unnatural activity has shortened hydroperiods and disrupted surface water sheet flows, resulting in "the alteration of the historical long hydroperiod wetlands to shorter hydroperiod prairies, causing shifts in vegetative species composition and species richness." *Id.* "Since its introduction into South Florida in 1906, Melaleuca has become established in areas that were historically wetlands, especially those stressed by reduced hydroperiods." AR614 at 39. ⁿ⁴⁹

ⁿ⁴⁸ The Court observes the irony that melaleuca originally was believed to be a benefit to the South Florida environment. Melaleuca was "introduced into Florida from Australia in 1908, and again in 1912, by private entrepreneurs hoping to utilize the extraordinarily high evapotranspiration rate of the tree to dry up swamp land, and at the same time produce commercial wood or timber." AR204 at 21-22 (this report is a discredited report which was submitted to the United States Bureau of Mines; the report cites a personal conversation with DERM staff in 1993 as the source of the information about melaleuca, cited here solely for the observation above).

[*58]

n49 Interestingly, the mining industry has argued, and the Corps has agreed, that the melaleuca-infested character of portions of the Lake Belt wetlands justifies their further degradation -- indeed, destruction -- by mining. AR614 at 383, 420. "The majority of this [mining] impact would occur to melaleuca infested wetlands, which would have a positive benefit of removing a potential seed source of this highly invasive exotic species." AR614 at 83. "The 41,000 acres mining area [referencing a longer term mining plan] is virtually all a seriously degraded wetland." AR22 at 5. It seems unusual that an industry's permission to engage in further environmental destruction is partially derived from the destruction already attributable, at least in part, to that industry's prior actions.

Mining not only has caused a greater infestation of the exotic melaleuca, but also "has created extensive areas of deep water habitat, which do not naturally occur in southern Florida." AR614 at 39, 383. The mining industry claims that these lakes will be of recreational benefit and, moreover, that the lakes actually [*59] prevent the further spread of melaleuca -- but the recreational benefits will be limited and the claim of melaleuca control is disputed. n50 In addition, the lakes are of questionable environmental value; for example, the presence of the lakes increases the seepage of precious groundwater from other Everglades wetlands. n51 The deep lakes are particularly problematic when located in proximity to the L-31N Levee/Canal which lies near the border of ENP, to the south of Tamiami Trail. n52 The L-31N "cuts through an area of extremely high groundwater flow, most of which originates from [the Park]. . . . The key to improving water conditions in . . . , especially for the Everglades, is controlling the seepage quantities now leaving the Park in a way that both minimizes the total amount of flow and returns as much of this flow as possible to the Park. . . . The quarries . . . do result in an increase in groundwater flow to the east [i.e., away from the Park]." AR614 at 230, 241, and Appendix A. For example, studies suggest that mining the entire Krome Quarry tract (Kendall Properties, closest to the ENP boundary), when compared to mining only the previously permitted lakes, may cause [*60] as much as an 11% increase (i.e., an additional 3 cubic feet per second per foot (cfs)) in seepage from the Park during the dry season, AR614 at 244; the Pennsuco also may be affected, with an average reduction of 35 days in the length of its hydroperiod as compared to the situation of mining only the permitted lakes in the area, AR614 at 244. n53

n50 An internal NPS document is illuminating:

The argument that the creation of deep lakes would help diminish the threat of melaleuca flies in the face of a decade of successful battles against melaleuca. Land managers have been using best management practices advocated by the Florida Exotic Pest Plan Council's "Management Plan for Melaleuca in Florida". Rock-mining is not one of those practices. Conventional integrated pest management actions (a combination of mechanical, chemical, and biological control measures) is proving very effective in reducing the establishment and distribution of melaleuca. Unlike rock-mining, these accepted control activities do not result in the irreversible loss of wetlands, but in their recovery. Native wetlands can be reclaimed from melaleuca infested wetlands; we have seen this within the [Everglades National Park] and elsewhere. Furthermore, melaleuca infested areas, while floristically poorer than natural marshes and prairies, do have ecological value because they are still wetland communities and support plants and wildlife.

SAR1336 at 2386. Although this document appears in the SAR, it reportedly was before the Corps as early as August 18, 2000, but was omitted from AR666 when the record was produced, see SAR1336. Another document omitted from AR666 noted that "Melaleuca will invade those [shelves around the quarry pits] just as it does in any wetland community in southern Florida. . . ." SAR1336 at 2472.

[*61]

n51 The mining industry has expressed concern that the Lake Belt area not be confused with the broader Everglades -- asserting that the Lake Belt is no longer part of the Everglades ecosystem. "We have to make certain there are no misconceptions related to Everglades issues. The area East of Krome Avenue and the L-31 Canal used to be part of the Everglades but was hydrologically cut off by the [C&SF] project in the early 1950's.

Historical drainage used to be toward the west into Shark River Slough by sheet flow and ground water flow. Now drainage is reversed." AR19 at 7. "The Lake Belt area is located in former Everglades wetlands." AR22 at 8. The area "was severed from the Everglades in the 1950s." Intervening Defendants' Reply brief, Docket Entry # 44, at p.3. These arguments are not addressed herein, as the Federal Defendants admit that the wetlands at issue are "Everglades wetlands." AR1028 at 2; Federal Defendants' Memorandum, Docket Entry # 33 at 7.

n52 ENP noted that the mining was proposed to be as close as 1,000 ft to the L-31N levee, which would directly impact the hydrologic conditions in the adjacent marshes of ENP, and that "mining has never been permitted this close to a primary water supply conveyance canal, such as L-31N." AR825. Mining in the first ten years is permitted as close as 1,000 ft from the L-31 canal. AR825, AR977.

[*62]

It is beyond question that limestone is a valuable product of the environment, and the record suggests that a good quality and quantity of limestone exists under the Lake Belt wetlands and other areas of Miami-Dade County. n54

The limestone rock resource found in the Lake Belt Area is of high quality. The resource is an important public resource needed for the continued growth and prosperity of the State of Florida. This was recognized by the State Legislature. . . . Rock in the Lake Belt is one of the few deposits in the State that meets Department of Transportation requirement [sic] for hardness and chemical content. Rock from the Lake Belt supplies much of Dade County and 40 percent of the State's rock, sand and cement for concrete, asphalt and road base [see EIS, Appendix I]. As other mining areas in the State are depleted, the Lake Belt Area is expected to supply a greater percent of the State's rock in the future.

AR1028 at 82. n55 The mining industry also has attempted to establish that Lake Belt limestone is of particular importance to the entire State. "That Florida has extremely limited resources of construction grade rock is demonstrated by the fact that [*63] this expensive-to-transport material was used to build Cape Kennedy and Disneyworld [sic], both more than 150 miles north of Dade County." AR209 at 1-2. n56

n53 Similarly, seepage from WCA-3B toward the west might increase 5% (16 cfs) during wet periods and 4% (9cfs) during dry periods when compared to mining only the permitted lakes. AR614 at 244.

n54 "The Dade County deposit spreads under the urban areas and out into the wetlands of the water conservation areas. . . . Mining is incompatible with urban land uses (it is very heavy industry) and also incompatible with the high quality wetlands of the conservation areas. The narrow strip of mining lands is classified as a wetland but this wetland has been seriously degraded by drainage and by infestation by *Melaleuca*, an exotic tree species imported from Australia in about 1900. . . ." AR22 at 4 ("The South Florida Limestone Mining Coalition Year 2050 Fresh Water Lake Belt Plan," issued June 15, 1992). "The 20,000 acres of deep mining included in the Lake Belt Plan would take approximately 60 years to complete at the rate of 300 to 400 acres per year. The project should thus be complete in the year 2050." AR22 at 7.

[*64]

n55 The argument that Lake Belt rock is one of the only rock types to be approved by the Department of Transportation ("DOT"), and thus mining must continue, is specious. Indeed, the DOT's "Standard Specifications for Road and Bridge Construction, Edition of 1986," provide that "limerock of either Miami or Ocala formation may be used." AR19 at 27. Moreover, Plaintiffs note that the mining industry actively engages with state officials to define what rock should be used. "The Lake Belt miners have successfully lobbied the FDOT to incorporate the Dade County limerock specifications into the FDOT roadbed material standards." AR549/FAR123.

n56 There is nothing in the record to support these broad and impressive statements by Paul Larsen regarding Disney World and Cape Canaveral/Kennedy Space Center except one handwritten note, which seems simply to report the amount of concrete required to build a particular hotel. "Dolphin Hotel, 45,000 cy of concrete which required about 40,000 T. of aggregates. Disney does not like to give out this kind of information -- picture

is hard to find." AR19 at 93. The Corps included Larsen's report in the EIS, as Appendix I, AR614 at 934, apparently adopting his statement therein that "both Disneyworld and Cape Kennedy [sic] were constructed from Lake Belt Rock."

[*65]

In addition to the existing quarry pits, agricultural uses, and melaleuca-infested areas, the Lake Belt also includes an area of relatively undisturbed wetlands, i.e., wet prairies of high functional value, n57 described as the Pennsuco n58 wetlands and comprising approximately 13,000 acres located west of the Dade-Broward Levee and north of Tamiami Trail. AR618 at 226, AR1028 at 4. Mining companies own a total of 46% of the Lake Belt, governments own 19%, and the other 35% is owned by private landowners. n59 Some of the mining companies own land in the Pennsuco, and the ROD reports that such property (approximately 9% of the miners' total land in the Lake Belt) will be sold for wetland restoration. AR1028 at 58. n60 Approximately 331.5 acres (of non-Pennsuco wetlands) are planned to be mined in each of the first ten years -- including some mining that was authorized under the previous permits. AR1028 at 116. (That totals only 3,315 acres of mining, but the ROD permits describe 5,409 acres of mining.)

n57 The Corps employs a detailed method for determining the relative value of wetlands. The 1987 Corps of Engineers Wetlands Delineation manual, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997), is used by both the Corps and EPA, see Interagency Memorandum of Agreement Concerning Wetlands Determinations, effective January 6, 1994, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997). In 1997, the Corps introduced the "hydrogeomorphic" (HGM) method of functional assessment of wetlands, which focuses on "the wetland's position in the landscape, its water source, and the flow and fluctuation of water once it is in the wetland." Linda A. Malone, *Environmental Regulation of Land Use*, § 4:5, at 4-8.1 (Supp. 2005).

[*66]

n58 The Pennsuco Wetlands are named after the Pennsylvania Sugar Co. See Michael Grunwald, "Between Rock and a Hard Place," *Washington Post*, June 24, 2002, at A-1.

n59 There are approximately 1,800 non-mining landowners, and this property is predominantly vacant or used for agriculture or rural residences. AR1028 at 5, AR617.

n60 It is unclear what price will be paid (even the question of which "appraised value" will be used), or by which governmental entity, to purchase this property from the miners, nor is it clear whether or how this transaction factors into the mitigation plan, if at all; nor is the arrangement binding. AR1028 at 70.

To frame the issues in this case, it is important to have a basic understanding of the mining activities that are occurring as a result of these contested permits. "Rockmining is a heavy construction operation. It involves blasting, heavy equipment operations such as draglines and dozers, walking and driving over harsh terrain, involvement with rock crushing heavy equipment with long conveyor belts, driving heavily loaded trucks and other hazardous [*67] type activities." AR1028 at 82. n61 "Heavy trucks transporting the rock to railroad loading sites add to the heavy traffic congestion," AR1028 at 82, and "approximately 2,000 trucks serve the local market in Dade and Broward counties. . . ." AR19 at 9. n62 "Mining . . . involves unavoidable noise and certain amounts of dust." AR19 at 5. The soil removed prior to blasting "is predominantly organic muck typical of [drained] Everglades marsh. . . . [which] overlies limestone bedrock." n63 AR1028 at 56. "The rock is excavated down to a depth of 80 feet [and after] excavation, muck is placed back on the 100-foot-wide limestone shelf. . . . Upon completion of the mining activities, there is a total conversion of the physical substrate from a wetland to a deep lake with a 100-foot littoral shelf along its perimeter." AR1028 at 56.64 The "deep lakes" or quarry pits, which are between 60 -- 80 feet deep, fill with water seeping in from the Biscayne Aquifer -- with which the pits interact directly -- and are added to by rainfall.

n61 The use of a "dragline" in limestone mining has been described as follows: "the mode of mining. . . . is to place a mechanism, called a dragline,' on solid ground, remove the muck overlay, dump it temporarily on the ground, remove the limestone thus made accessible with aid of blasting as necessary, dump some of the previ-

ously removed limestone or muck into the hole to make a solid foundation to which the dragline' can be moved, and commence another phase." Florida Rock Industries, Inc. v. U.S., 791 F.2d 893, 895 (Fed. Cir. 1986).

[*68]

n62 The Florida Department of Transportation submitted comments in response to the EIS, raising concerns about impaired traffic mobility issues caused by the increased truck and train traffic originating from the mining areas. AR657.

n63 "Mined material comes from the Miami Oolite formation, which underlies almost the entire county. The formation is about 40 ft. thick and dips very gently toward the east. The Miami-Dade County limestone area is situated over a wedge of the Miami Oolite that thickens from a feather-edge along Everglades National Park eastward toward the western suburbs of the city of Miami." AR204 at 18 (discredited Bureau of Mines report -- cited here for limited purpose of describing background geological conditions).

n64 Clearly, there is much more involved in the mining process than described above, including the steps taken by the mining industry to protect the surrounding area, the construction of an infrastructure to permit access to the area by the trucks and subsequent travel to railroads or other departure points, etc. The Court simply offers this brief overview of the process as context for the substantive issues addressed in this opinion -- indeed, the specifics of the mining industry, beyond what is described in the administrative record, are of no relevance to this Court's determination.

[*69]

The mining companies sell the limestone rock and several related products, and at least two of the companies manufacture cement from the rock. The miners claim to need a 50 year plan to provide the certainty that they need to continue in business, AR610 at p.8, n65 because of the "enormous capitol [sic] expenditure required by this industry." AR19 at 9. They also assert that they expect permits to continue to be issued for mining.

The nature of the industry demands that considerable capital investments be made in heavy equipment and processing plants. These investments often have depreciation schedules greater than the length of a typical Permit. The industry recognizes that Corps permits have expiration dates, and, barring a change in the Clean Water Act, there is an expectation of continued permitting. This is not to say the permits cannot be allowed to expire or revoked, but that the basis for the permit termination should be based on new information on environmental or other impacts that indicate mining would be contrary to the public interest or be illegal under other laws.

AR1028 at 36. n66

n65 The 50-year footprint reflects the industry's expectations of the quantity of rock the public will buy. AR1028 at 39.

[*70]

n66 "[Processing plants, cement mills] cannot be moved. . . . Total capitol [sic] investment in this industry is in the ball park' of 800 million dollars. A ball park' value for roughly 20,000 Acres of land is 200 to 300 million dollars. **Thus, the Dade County Industry is easily a billion dollar industry.**" AR19 at 9 (emphasis in original). The Court finds no independent support for this statement in the record and doubts that it would not stand under any level of scrutiny of the corresponding data.

While mining occurred freely in the 1950s and 1960s, the regulatory environment changed significantly in the late 1970s. n67 The United States, acting through the Corps, began requiring permits under the CWA for mining activities being conducted in wetlands. n68 The County also, in 1975, produced its first Comprehensive Master Plan, n69 which,

according to the mining industry, "recognized and approved the ongoing mining industry in the Lake Belt Area." AR610 at 22. According to the County's land use report prepared for inclusion in the EIS, rock mining is an allowable use in "general [*71] use" or "agricultural" zoning categories, AR614 at 59, which exist throughout most of the Lake Belt -- with the notable exception of the Pennsuco wetlands, which are designated for "Environmental Protection" (although the area also includes some general use and agricultural zoning). AR614 at 62, 805 -- 823, Appendix E, Lake Belt Land Use Report. n70

n67 "After passage of the Clean Water Act in 1972, the Corps began regulating the industry . . . [and] has issued a number of . . . permits . . . related to the mining." AR1028 at 35. The Corps has defended the current permits by referring to the fact that "both the state and Dade County have over the years either condoned or encouraged rock mining in this area." AR778.

n68 Some of these permits were issued to the mining companies represented in this action. See, e.g., AR1028, Table G (Table showing some permits to these companies which appear to have been issued as early as the late 1970s). According to an EIS issued by the Corps in March 1983 regarding limestone mining in this area, the Corps received 43 applications in 1979-80 for Section 404 (Clean Water Act) permits for limestone mining in the four South Florida counties being studied at that time: Dade, Broward, Monroe, and Collier. The majority of the applications were for sites in the general vicinity of the area now known as the "Lake Belt." AR2, p. 11. That EIS evaluated three alternatives for the excavation and use of limestone in South Florida: maintain the status quo (i.e., mining could continue consistent with existing regulations -- no further regulations were required); eliminate mining in the subject wetlands; or permit mining only in selected areas based upon approved criteria. The ROD subsequently issued upon that EIS determined that the third alternative was preferable, as it would "insure all cultural, biological, chemical, and physical conditions in each area will be evaluated at the time of permit decision." AR3, p. 2.

[*72]

n69 The County adopted a new Comprehensive Development Master Plan in 1988, see *City Nat'l Bank of Miami v. United States*, 33 Ct.Cl. 224, 225-26 (1995).

n70 A full discussion of land use regulations, including the availability of exemptions or "unusual use" permits which might allow variances from established zoning or regulations, is beyond the scope of this opinion.

The exercise of regulatory jurisdiction by the Corps over the actions of one limestone mining company (Florida Rock, an intervening defendant in the present action), resulted in the commencement of litigation in 1982 challenging the denial of mining permits as an uncompensated regulatory taking. That litigation, as previously noted, appears to have played an important role in the relationship that developed between the mining industry and the Corps -- as evidenced in the permitting process presently before this Court. Because of its importance, n71 and also because it represents a somewhat unusual interpretation of federal takings jurisprudence, the Court will address the Florida Rock case here in some detail. [*73]

n71 The case ultimately settled for \$ 21 million in 2001, after a lengthy battle -- including two trips to the Federal Circuit (with reversals).

At the commencement of the inverse condemnation action in the early 1980s, Florida rock conceded the legitimacy of the Corps' permitting decision, i.e., the denial of a permit for three years of mining on 98 acres wetlands. n72 In May 1985, the Court of Claims held that denial of the mining permit constituted a taking, thereby rejecting the Government's suggestion that other uses for the property remained, and awarded \$ 1,029,000 (i.e., \$ 10,500 for each of the 98 acres, that had been purchased originally by 72 The property was located in the Pennsuco area of the Lake Belt. Florida Rock for \$ 1,900/acre). n73 *Florida Rock Industries, Inc. v. U.S.*, 8 Cl. Ct. 160 (1985) (then Chief Judge Kozinski). n74 The Federal Circuit reversed that decision. Although not disagreeing that a taking had occurred, the court noted that the Claims Court's written findings [*74] -- which conflicted with that court's earlier oral announcement n75 -- that there was no threat of pollution to the wetlands related to the temporary turbidity caused by the mining, presented a potential

conflict with the Corps' right to exercise permitting authority and such conflict may have improperly influenced the takings determination. The court also noted that speculative future uses could be considered in the valuation of the property and that the fair market value, not the "use value formula," should be applied. *Florida Rock Industries, Inc. v. U.S.*, 791 F.2d 893 (Fed. Cir. 1986). n76 The Claims Court again, in July 1990, found a taking and reinstated the prior finding that the property was valued at \$ 10,500 per acre. The court rejected the Government's evidence of comparable sales and, instead, relied on Florida Rock's demonstration that their property had suffered a 95% reduction in value because purchasers who were knowledgeable about the wetland restrictions would not pay full price for the property. *Florida Rock Industries, Inc. v. U.S.*, 21 Cl. Ct. 161 (1990). The Federal Circuit, in 1994, again reversed the decision and the valuation [*75] method -- criticizing the value placed on the property, and remanding for an analysis as to whether a taking actually had occurred, i.e., whether all economically beneficial use of the land had been denied. *Florida Rock Industries, Inc. v. U.S.*, 18 F.3d 1560, 1562, 1564-67 (Fed. Cir. 1994). For a third time, the Claims Court, in 1999, found that there had been a taking, noting that Florida Rock bought land and started mining before the CWA dredge and fill permit system was created, that mining was the only economically viable use of the property, that the property suffered a 73.1% decrease in value because of the permit denial, and that Florida Rock couldn't recoup its investment by selling the property. *Florida Rock Industries, Inc. v. U.S.*, 45 Fed. Cl. 21 (1999). n77 Shortly thereafter, the claims court also ruled that repeated applications for permits to mine the remaining 1,462 acres (of Florida Rock's total 1,560 acres) would be futile, such that Florida Rock should receive compensation for these acres as well. n78 The court certified its ruling for immediate appeal to the Federal Circuit. *Florida Rock Industries, Inc. v. U.S.*, 2000 U.S. Claims LEXIS 50 (2000). [*76] While the Government's appeal of that decision was pending n79 before the Federal Circuit, the parties reached a settlement which dismissed the Claims Court judgment and the appeal. *Law of Wetlands Regulation*, pp. 10-15. The settlement for \$ 21 million bears little relation to the early pronouncement by Chief Judge Kozinski that compensation for the entire 1,560 acres parcel would be \$ 10,580,000, plus interest. *Florida Rock Industries, Inc. v. United States*, 791 F.2d 893, 895, 897 (Fed. Cir. 1986). Although there has been significant public opposition to this mining for the past several years, as demonstrated by the substantial number of objections lodged in the administrative record, the Florida Rock litigation was a powerful reminder of the financially costly consequences of the Corps' permitting decisions. n80

n73 The Claims Court ignored evidence that Florida Rock had received numerous unsolicited inquiries and been offered \$ 4,000 per acre by a buyer, even after the permit denials and without advertising the property for sale. *Florida Rock Industries, Inc. v. U.S.*, 791 F.2d 893 (Fed. Cir. 1986).

[*77]

n74 The Claims Court also awarded attorneys' fees and costs in a total amount of \$ 500,000. *Florida Rock Industries, Inc. v. U.S.*, 9 Cl. Ct. 285 (1985) (Chief Judge Kozinski).

n75 One year had passed since Chief Judge Kozinski had announced his oral ruling, which reportedly was his common practice. *Fla. Rock Indus.*, 791 F.2d at 899.

n76 The court noted that the lower court should not have ignored the possibility that a speculator might be willing to purchase the property despite the then-current regulatory scheme, because "our descendants may know things we do not even suspect. There is nothing so certain in life as that all certainties become uncertain, and some are replaced by their opposites. One who invests in land on this faith may be a speculator, but he is not on that account a gull." *Fla. Rock v. United States*, 791 F.2d 893, 903 (Fed. Cir. 1986).

n77 In 1992, Congress changed the name of the United States Claims Court to the Court of Federal Claims.

n78 The claims court observed that Florida Rock had a business plan based on mining its entire 1560 acres over many years and that almost two-thirds of the time had passed as a result of the permit denial so the corporation "deserved" a determination as to whether the probable denial of permits for the remaining acres constituted a taking. Evidently the Claims Court did not entertain the possibility that the property might attain a value at some future date, which is peculiar because Florida Rock was not intending to mine its entire 1,560 acre parcel immediately -- indeed, its permit application was for the 98 acres it planned to mine in three years, and at that rate the 1,560 acres would have lasted 47 years. To have found a taking as to the entire parcel based upon the corporation's business plan is an interesting result also because, as the Federal Circuit noted, owners of property generally are not compensated for governmental "frustration of business expectations," *Florida Rock Industries, Inc. v. U.S.*, 791 F.2d 893, 903 (Fed. Cir. 1986).

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n79 Florida Rock's appeal was dismissed as having been untimely filed. *Florida Rock Industries, Inc. v. U.S.*, 2000 U.S. App. LEXIS 21752 (Fed. Cir. Aug. 3, 2000).

n80 "One may speculate whether the significant recent reduction in the annual number of permit denials by the Corps of Engineers was influenced by the greater vulnerability of outright denials, as opposed to conditioned approvals, to takings actions. Nor, in this regard, does it take more than an occasional adverse court decision to maintain the hot breath of taking liability on the regulator's neck." Robert Meltz, "Wetlands Regulation and the Law of Property Rights Takings'," Congressional Research Service Report for Congress (2000), available at <http://ncseonline.org/nle/crsreports/wetlands/wet-6.cfm>(referencing report that Corps denied only 3.2% of permit applications in fiscal year 1998, as compared to 8.8% denied in fiscal year 1992).

In 1991, after its second victory before the Claims Court, the mining industry approached officials from the State of Florida, Dade County, and the Corps "with the idea of coordinating [*79] permitting" to "maximize limestone recovery" n81 by connecting adjacent quarries (instead of having to stop inside of property lines). AR19, AR1028 at 35. The industry also proposed to "utilize the resulting contiguous lake[s] for public recreation" and to "restore a large contiguous area of the Everglades known as the Pennsuco." AR1028 at 35. As part of their "South Florida Limestone Mining Coalition Year 2050 Fresh Water Lake Belt Plan," the miners would mine 300 to 400 acres per year for approximately 60 years, for a total of 20,000 mined acres by the year 2050. AR22. n82

n81 In a presentation to the Florida Department of Environmental Regulation (now known as the Florida Department of Environmental Protection ("DEP")), the miners noted that "it has been estimated that each new Florida dwelling unit and its residents require 200 to 300 tons of rock for the unit, its parking space, the roads leading to it, and environmental needs for water and sewer, etc." AR19 at 4.

n82 The mining industry was "trying to avoid having this proposal treated as a permit application. We do not want to get locked into a specific plan." AR93.

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Apparently in response to the miners' pitch, the Florida Legislature created a committee of agency and industry representatives to study and review future mining activities. The Dade County Freshwater Lake Plan Implementation Committee ("Committee") was established, according to Fla. Stat. § 373.4149, to "develop a plan which: enhances the water supply for Dade County and the Everglades, maximizes efficient recovery of limestone while promoting the social and economic welfare of the community and protecting the environment; and educates various groups and the general public of the benefits of the plan."

The Committee was chaired by the regional water management district, the South Florida Water Management District ("SFWMD") n83, and did not include any federal agencies as voting members. The Corps, EPA, and FWS all shared "ex-officio" status with selected Florida legislators. AR395, AR1028 at 35. Originally there were thirteen voting members on the Committee, four of whom were from the rock mining industry, and three of whom represented environmental organizations (including Plaintiff Sierra Club); two more members were added in 1994, AR395 at 15, 18. [*81] n84 At some point before June 2000, two additional non-mining landowners were added to the Committee.

n83 As early as February 1996, senior Corps staff expressed concern that "[SFWMD] may have already bought in to the miners' plan," AR271, and that the miners seemed to have SFWMD "on board" with the miners' proposal. AR270.

n84 Plaintiffs claim that the Lake Belt Committee had a clear bias in favor of approving rock mining. According to members who served until 1998, the Committee was "dominated by rock miners, their supporters, and state employees focused on maximizing the recovery of limestone" (Declaration of Barbara Lange, Committee member 1996 -- 1998, 2000), and it was apparent that "the Committee's focus was to endorse extensive rock

mining activities while paying mere lip service to environmental issues" (Declaration of Roderick Jude, Committee member 1992 -- 1998). See Plaintiffs' Memorandum in support of Motion for Summary Judgment, Exhibit 2. According to Ms. Lange and Mr. Jude, the Committee refused to acknowledge Sierra Club's opposition to the Committee's major report, in 2000, i.e., the "Phase II Plan" -- which was the culmination of the Committee's 8 years of work. The Sierra Club letter of objection appears at page 458 of the 529 page document). The Corps also complained, in November 1996, of a pro-mining bias from the Committee. "All we get from miners and Committee is plans skewed toward serving their interest. We need a middle ground approach." AR341.

[*82]

In June 1992, the mining industry, acting as the South Florida Limestone Mining Coalition (Coalition) presented its "Year 2050 Fresh Water Lake Belt Plan" to the Committee. Environmental, land use, and water quality concerns were raised swiftly by DERM to the Lake Belt Committee, the SFWMD, and the Corps. AR44-46. n85 Immediately recognizing that the issuance of mining permits in these wetlands would constitute a "major federal action," the Corps formally advised the SFWMD in July 1992 that an EIS was required, AR38, and in the fall of 1992 the Corps issued a "Fact Sheet" announcing that an EIS would be developed concerning a proposed area of 54,000 acres, including 19,600 acres of proposed lakes, 4,000 acres of existing lakes, 17,000 acres of constructed wetlands, and 13,000 acres of wetland preservation and maintenance areas. n86 The Corps previously had prepared an EIS on mining in this area in 1983, concluding that permit applications would be reviewed on a "case-by-case basis," as it was "essential that mitigation requirements be flexible to reflect the needs of the people, the socioeconomic values and industrial demands, and future technical data. . . ." AR3. When the Corps [*83] conducted the EIS for the present mining, it abandoned its original approach.

n85 The County questioned whether the plan for mining was a viable option for South Florida, and insisted that the Committee study whether there were "no feasible alternatives" for the mining. AR44, AR45. The County also observed that limestone quarrying is not included in the list of uses that may be considered for approval in the Dade-Broward Levee basin. AR45.

n86 The "Fact Sheet" identified the mining coalition as Rinker, Tarmac, and White Rock (an earlier version included Florida Rock, Union Rock, and Vulcan).

Interagency discussions were held to prepare a scope of work for the new EIS and to identify partners for support of the endeavor. A meeting was held at DERM in October 1992 to discuss the necessary biological studies, and in November 1992 the FWS advised the Corps that, while the Service would cooperate on EIS preparation, it did not have funds for doing vegetative and wildlife and mitigation analyses. AR83. Also, the [*84] U.S. Geological Service declined to participate formally as a cooperating agency but offered to assist by providing any of its existing information. In December 1992, technical staff from SFWMD met with the Coalition and other agencies to discuss alternative designs for the environmental studies.

The Lake Belt Committee issued reports to the state legislature and initiated several studies designed to understand the function and quality of the wetlands within the Lake Belt Area, including two-year studies initiated in 1994 on the functional value of the vegetation, wildlife, and existing lakes within the Lake Belt Study Area. Phase I of the Lake Belt Committee's Report and Plan were submitted to the Florida Legislature in February 1997 ("Making a Whole, Not Just Holes"). AR433.

In January 1997, an Issue Advisory Team was created by the South Florida Ecosystem Restoration Task Force Working Group n87 to draw a map and analyze alternative mining scenarios. The Team included subcommittees to study mitigation and wellfield protection, and an agency sub-subcommittee that would debate the application of a functional assessment of the existing wetlands in order to reach an acceptable mitigation [*85] ratio. AR562. The issue team's report was completed within a few months, and was presented to the Working Group in July 1997.

n87 The Working Group was established by the South Florida Ecosystem Restoration Task Force, which itself was created by the 1996 WRDA. The Working Group includes federal, state, and local agency representatives, as well as tribal and environmental representation, and supports the work of the Task Force by coordinat-

ing the development of consistent policies regarding the restoration and preservation of the South Florida ecosystem. See <http://www.sfrestore.org/wg/index.html>.

The Corps began circulating a preliminary draft of the EIS, with respect to mining on 15,800 acres over a fifty year period at least as early as 1997; additional review continued as the Corps began receiving comments on the draft EIS. In October 1997, the Florida Legislature issued a clear directive to the state and local agencies.

To further streamline permitting within the Miami-Dade County Lake Belt, the [DEP] [*86]

and Miami-Dade County are encouraged to work with the United States Army Corps of Engineers to establish a general permit under s. 404 of the Clean Water Act for limerock mining activities within the geographic area of the Miami-Dade County Lake Belt consistent with the report submitted in February 1997. Miami-Dade County is further encouraged to seek delegation from the United States Army Corps of Engineers for the implementation of any such general permit.

Fla. Stat. § 373.4415. "Further, the reclamation program shall maximize the efficient mining of limestone, and the littoral area surrounding the lake excavations shall not be required to be greater than 100 feet average in width." Fla. Stat. § 378.4115 [amended 1999,2001].

Applications for new permits already had been submitted to the Corps as early as July 1998, n88 and others were received while the Corps was preparing the EIS. AR1028 at 11. n89 In February 1999 the draft EIS, AR578, was distributed and it was published in the Federal Register on March 8, 1999. AR614 at 895. Although strong objections were received from a number of sources regarding the [*87] EIS, the Corps continued drafting and circulating revised text for the permit templates, AR591, even though the Corps had yet to conduct an evaluation of practicable alternatives to the mining. In mid-December 1999, the mining industry provided a report prepared by Paul Larsen, "Analysis of the Practicability of Non-Lake Belt Alternative Sources to Supply Florida's Demand for Basic Construction Materials," which was included as Appendix I to the final EIS. n90

n88 Sunshine Rock's application was received on July 30, 1998. AR1028 at 11.

n89 By the time that the final EIS was issued in June 2000, the Corps considered all permit applications complete. AR1028 at 11.

n90 Recall that in 1994, the Federal Circuit had reversed the finding of a taking of Florida Rock's property, and the Claims Court didn't reinstate its ruling again until 1999, so the parties' issues were unresolved during those five years -- even though the threat of a significant judgment against the United States remained. During this time of uncertainty in the Florida Rock litigation, EPA and others insisted that the takings case be resolved as part of the overall agreement with the miners' proposed plan. AR559 (EPA, March 16, 1996), AR498 (DEP, July 14, 1997). The mining industry walked out of a March 18, 1998, meeting reportedly because they "were upset about settlement of [the] takings case and areas of mitigation to be determined as a result of Lake Belt process." AR560. Soon thereafter, the Florida Legislature passed the Lake Belt bill and the DEP pushed for a resolution of the takings case so that lands in the Pennsuco could be exchanged and committed for mitigation. AR566. The Corps' position was that the takings settlement should be a comprehensive package and that without its resolution there would be "no deal for [the mining] consortium." AR566. Corps staff expressed concern that paying Florida Rock might reveal that the Government was paying more than fair market value, AR557, which would impact the future ability to purchase lands for mitigation at a reasonable price.

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The final EIS was issued in June 2000, accompanied by a Public Notice of intent to issue permits for fifty years of mining. AR1028 at 11. A multitude of objections were received from environmental groups, AR666 (Sierra Club and others); individuals, AR775, AR786, n91 AR830; governmental agencies, AR669 (NPS), AR671 (FWS), AR705A (EPA), AR712 (Department of the Interior), AR791B (DERM); private corporations, AR579, n92 AR745; and the Miccosukee Tribe, AR605. Several requests for a public hearing were received. AR664, AR667, AR678. n93

n91 Property owners adjacent to one of the quarries objected that blasting from mining was causing cracks in their house foundations, pools, etc. AR789. One of the Miami-Dade County commissioners attended a Lake Belt Committee meeting on July 20, 2000 (just one month after the final EIS was published), and noted that a County Blasting Task Force had "wanted to limit the frequency and intensity of blasting but without the Task Force's knowledge, the rock-mining industry got a bill passed in the state legislature that pre-empted local regulation of blasting and established the blasting intensity." AR681 at 3.

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n92 Atlas Material Testing Solutions objected because the blasting from mining affected the company's ability to test outdoor materials for its clients. AR579.

n93 The requests reference the Corps' announced "public meeting" to be held on August 24, 2000, but there is no evidence in the record that any such meeting occurred, or that the Corps ever held a public hearing.

In February 2001, the Lake Belt Committee submitted its Phase II plan to the Florida Legislature, and reported on the Committee's record of monthly meetings n94 and the two major public meetings which it had held. All landowners in the Lake Belt had received notice of those public meetings and approximately 250 had attended each time; the Committee also had hosted a series of stakeholder meetings in 1999. AR617. The Plan was adopted in June 2001, Fla. Stat. § 373.4149, along with a Lake Belt Mitigation Plan, which imposed a mitigation fee of \$.05 per ton of mined rock extracted from the Lake Belt, to be administered by the Florida Department of Revenue, with expenditures to be approved by an interagency [*90] committee. Fla. Stat. § 373.41492(2). The interagency committee, which did not include any federal representation but did provide for the mining industry to have a non-voting position, met for the first time in November 2000, ultimately expanding its membership to include the leading federal agencies: Corps, EPA and FWS. n95 Although the mitigation fee was to become effective as of October 1, 1999, the statute provided that the fee would be suspended if a "long-term permit for mining" was not issued on or before September 30, 2000. n96 Fla. Stat. § 373.41492. n97 The original Lake Belt Committee continued to meet, and considered three plan scenarios, based on criteria described in the Committee's 1995 "Initial Objectives and Measures of Success," before selecting a "preferred concept" for the future mining.

n94 Interestingly, the minutes of the Committee's June and July 2000 meetings contain no mention of the Corps' EIS, despite the nature of the strong objections being raised. The EIS is mentioned briefly at the August 2000 meeting.

n95 ENP recommended that the permits be denied based, *inter alia*, on the fact that there were no federal agencies or any federal oversight planned for the mitigation funds. AR669.

[*91]

n96 "If a general permit by the US Corps, or an appropriate long-term permit for mining, consistent with the Miami-Dade County Lake Belt Plan, this section, and ss. § 373.4149, 373.4415, and 378.4115 is not issued on or before September 30, 2000, the fee imposed by this section is suspended until revived by the Legislature."

n97 This legislation also created a short-lived requirement that all owners of properties in the Lake Belt area submit to the Miami-Dade County recording office an affidavit of disclosure that acknowledged the existence of limestone mining activities involving the use of explosives within close proximity of their property. Copies of that affidavit were to be provided to any party who might later buy, lease, or develop the land, and failure to include the disclosure would provide that party with the right to void the real estate transaction. FAR89. The effect of this affidavit requirement was that private landowners were to be put on notice of the blasting taking place near their property and, presumably, would have little or no recourse about the negative impacts. Apparently acknowledging that the affidavit "went too far," the legislature repealed the affidavit requirement within a few months of its effective date. FAR76.

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The Corps issued a Revised Public Notice on March 1, 2001, which announced that the period of mining had been reduced to ten years with a reduced total mining impact of 3,959.07 acres, n98 and an initial review period after the first three years of mining. The Corps noted that "activities would not proceed after the [initial review date] unless the permits were specifically renewed with modifications, if needed." AR737. n99 On October 10, 2001, EPA requested a strong voice in the three year review, despite the Corps' apparent plan to not issue a public notice regarding the review; EPA also declared that it would not yet remove its objections to the permits. AR870.

n98 The EIS specified the area of impact as "15,000 +" acres of quarry lakes, which when added to the existing 5,000 acres of lakes, would total **21,000** acres of lakes at the end of the project. AR614 at 124 (Programmatic Section 404(b)(1) Evaluation). At another location in the same document, the Corps says that the plan "would result in the mining of approximately 15,800 acres of wetlands over the next 50 years." AR614 at 10 (Executive Summary). The Public Notice that was published with the EIS specifies that it addressed permit renewals and new permits, with a total of 14,300 acres to be mined, added to approximately 5,600 acres of quarry pits existing as of 1998, for a total impact of **19,900** acres -- a difference of 1,100 acres in impact when compared to the EIS. AR623A. The difference in these figures, considering that they are found in public documents published by the same agency at approximately the same time, is unexplainable, confusing and a constraint on the public's meaningful participation.

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n99 The Corps' failure to specify in the Revised Public Notice what criteria would be evaluated at the end of the three years was criticized by ENP and others. AR825. "The results of this review should be coordinated with the resource agencies (not just the permitting agencies)." Id.

The EIS had lacked any detailed study of the endangered wood stork, a protected species which had been observed in the Lake Belt Area, and the FWS had recommended denial of the permits, as explained in its correspondence to the Corps dated April 30, 2001. In an apparent attempt to remedy this omission, a Biological Assessment (BA) was prepared by the mining industry, AR82B, and submitted to the Corps and FWS in May 2001. After reviewing the BA, FWS provided its opinion that the proposed mining would not adversely affect the endangered wood stork. Shortly thereafter, DEP announced its intent to issue a permit to the first of the mining companies, Sunshine Rock. n100

n100 A permit also was issued to White Rock in August 2001 -- both of these companies' mining areas are in the northern part of the Lake Belt, at some distance from the wellheads in the Northwest Wellfield. In late 2001, these two companies, along with Sawgrass Rock, had threatened to break apart from the mining coalition and proceed with mining pursuant to these state-issued permits (and pursuant to their previously existing permits from the Corps), because the issues which were taking so long to negotiate in the Lake Belt plan, e.g., wellfield protections, did not relate to these companies. AR914.

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In December 2001, FWS advised the Corps that it would not seek further review of the proposed permit, despite continuing questions about the adequacy of the mitigation plan. AR947/AR948. n101 On February 7, 2002, EPA announced that it would not pursue a higher level review. AR966. Lacking any further formal objections from its federal partners, the Corps issued the ROD on April 11, 2002, AR1028, with a corresponding press release. The Corps also advised the Miami-Dade County Manager that the County's request for a public hearing was denied. AR1023.

n101 Another copy of this letter is found at AR947.

The ROD specifically stated that "the permits authorize a 10-year footprint but the EIS and this memorandum also describe the 50-year effect." AR1028 at 59. n102 The Corps clearly was troubled by the question of water supply.

The need for additional water from the regional system [for delivery of water to restore the Everglades] is a difficult issue for the Corps acting under Section 404 of the Clean Water [*95] Act to address since the Clean Water Act reserves water supply aspects to the States. This issue is certainly recognized by the State and must be incorporated by the State in its water supply planning. Both resolution of this issue and the design of seepage avoidance/compensatory actions is best done in conjunction with CERP components related to seepage, which . . . have complete [sic] dates of 2013 and 2014.

AR1028 at 52. The Corps concluded, however, that "there are no practicable nor less damaging alternatives which would satisfy the project's overall purpose [of providing construction-grade limestone from Miami-Dade County]." AR1028 at 59. The ROD estimates that between 4,390 and 7,544 acres of mitigation will be required over the ten year period, depending upon the rates of mining in relation to the rate of acquisition of wetlands to be restored. AR1028 at 69. The completion of the initial review period was to have occurred at the end of the first three years, i.e., by April 11, 2005. Although the Federal Defendants advised the Court that the review probably would be completed by December 31, 2005, there still has been no report. See Plaintiffs' Notice of Corps' [*96] Non-Compliance with Proposed Review Schedule, filed February 17, 2006, to which no response was filed.

n102 It is clear from the permit instruments which were issued after the ROD that mining was approved to occur not just along the already degraded eastern side of the Lake Belt but also in the center of the Northwest Wellfield protection area, and near the ENP. See, e.g., various permit instruments: AR1071 at 28 (Tarmac), AR1090 (Florida Rock), AR1100 (Pan American Construction).

The Court now will address the specific Counts and further analyze the facts relevant thereto, based upon the Court's review of the administrative record.

III. DID THE CORPS COMPLY WITH NEPA AND THE APA 706(2)? (COUNT V)

Plaintiffs allege that the Corps violated NEPA and section 706(2) of the APA by, *inter alia*, issuing an EIS that did not sufficiently analyze the direct, indirect and cumulative environmental impacts of mining, and did not disclose the existence of less environmentally damaging alternatives. [*97] Plaintiffs also claim that the Corps failed to provide a meaningful discussion of the aesthetic and recreational impacts of the proposed project, and didn't disclose critical information, e.g., the existing conditions at the site of each proposed quarry, to the public before the permit decision was made.

A. NEPA and its implementing regulations

In 1970, NEPA was enacted as "our basic national charter for protection of the environment," 40 C.F.R. 1500.1 (a), with a stated purpose of "promot[ing] efforts which will prevent or eliminate damage to the environment." 42 U.S.C. § 4321. NEPA contains "action-forcing" provisions to guarantee that federal agencies comply with both the letter and spirit of the statute, 40 C.F.R. 1500.1(a); a primary example of such provisions is the requirement of an EIS. An agency must prepare an EIS for any "major Federal actions significantly affecting the quality of the human environment." 42 U.S.C. § 4332(2)(C). n103 It is undisputed that the Corps' act of approving limestone mining by these permits constitutes a major Federal action.

n103 An agency does not always have to prepare an EIS, and under certain conditions may elect only to prepare an Environmental Assessment (EA), 33 C.F.R. 230.10, 40 C.F.R. 1501.3, 40 C.F.R. 1508.9, which is a concise document explaining the agency's decision whether to prepare an EIS or to announce a "finding of no significant impact," i.e., a FONSI, on the human environment, 33 C.F.R. 230.11, 40 C.F.R. 1508.13. See, e.g., *City of Oxford v. F.A.A.*, 428 F.3d 1346 (11th Cir. 2005) (FONSI supported, agency need not prepare EIS for proposed airport runway extension since it was not "foreseeable" that it would lead to relocation of a nearby

highway or construction of a new terminal building); *Hill v. Boy*, 144 F.3d 1446 (11th Cir. 1998) (FONSI not supported, Corps improperly assumed that petroleum pipeline would be relocated from under a proposed reservoir, remand for consideration in EIS of adverse effects if pipeline not moved).

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"Challenges brought under [NEPA] are reviewed by the arbitrary and capricious standard, as defined by the APA." *Sierra Club v. U.S. Army Corps of Eng'rs*, 295 F.3d 1209, 1216 (11th Cir. 2002). The Court, therefore, must determine whether the agency action was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with the law," 5 U.S.C. § 706(2)(A). The Corps' decision should be set aside "only for substantial procedural or substantive reasons as mandated by statute. . . ." *North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1539 (11th Cir. 1990) (agency preparation of EIS was not arbitrary or capricious regarding construction of highway with median for mass transit). Although the Eleventh Circuit has cautioned that this standard is "exceedingly deferential," *Fund for Animals, Inc. v. Rice*, 85 F.3d 535, 541 (11th Cir. 1996), n104 it nevertheless is not a meaningless standard. That is, the application of the standard must not be so deferential as to result in this Court serving as a consistent source of approval for agency actions, without regard to the facts presented. Indeed, NEPA [*99] is "designed to prevent agencies from acting on incomplete information and to ensure[] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die otherwise cast." *Sierra Club v. U.S. Army Corps of Eng'rs*, 295 F.3d 1209, 1214 (11th Cir. 2002), quoting *Robertson v. Methow Valley*, 490 U.S. 332, 349 (1989). The administrative record here reveals several instances in which the Corps acted on incomplete information, in violation of NEPA, which will be addressed in further detail below.

n104 Not surprisingly, this "exceedingly deferential" standard of review resulted in the Supreme Court's unanimous approval of the agency EIS at issue in each of the companion cases, *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989), and *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360 (1989). In *Robertson*, the Supreme Court held that an EIS need not contain a "complete" mitigation plan. when NEPA doesn't impose a substantive requirement that mitigation measures actually be taken, and in *Marsh* they held that supplementation of an EIS was not necessary in light of the inaccuracy of the allegedly new information -- observing, however that supplementation of the EIS clearly would have been required if the information presented had been "both new and accurate." *Marsh*, 490 U.S. 360, 385 (1989).

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In preparing an EIS, the Corps is required to follow its own regulations implementing NEPA, 33 C.F.R. 230.1, as well as the regulations promulgated by the Council on Environmental Quality (CEQ) n105 See, e.g., 40 C.F.R. 1501.3, 1501.4, 1508.9, 1508.27. n106 An agency's EIS report must include:

- (i) environmental impact of the proposed action, n107
- (ii) any adverse environmental effects which cannot be avoided if the proposal is implemented, n108
- (iii) alternatives to the proposed action, n109
- (iv) relationship between short-term uses of environment and maintenance and enhancement of long-term productivity, and
- (v) any irreversible and irretrievable commitments of resources which would be involved in the proposed action if implemented.

42 U.S.C. § 4332(2)(c). The NEPA regulations had been interpreted at one time to require analysis of a "worst case scenario," however this proved unproductive as it lead to limitless inquiries into highly speculative harms. *Robertson* at 354-56. The "worst case" [*101] requirement was replaced with a requirement that agencies, when "information relevant to reasonably foreseeable significant adverse impacts cannot be obtained because the overall costs of obtaining it

are exorbitant or the means to obtain it are not known," must prepare a "summary of existing credible scientific evidence . . . and the agency's evaluation of such impacts based upon theoretical approaches or research methods generally accepted in the scientific community." 40 C.F.R. 1502.22(b); Robertson at 354-355. Impacts are "reasonably foreseeable . . . even if their probability of occurrence is low, provided that the analysis of the impacts is supported by credible scientific evidence, is not based on pure conjecture, and is within the rule of reason." 40 C.F.R. 1502.22(b).

n105 The Council on Environmental Quality (CEQ) was established by NEPA with the authority to issue regulations interpreting the statute, which it did on November 29, 1978. See 40 C.F.R. 6.101(b), Department of Transp. v. Public Citizen, 541 U.S. 752, 757 (2004). The CEQ regulations are found at 40 C.F.R. Part 1500, and have remained, for the most part, unaltered during the past three decades. The Corps' regulations explicitly incorporate the CEQ regulations. "Whenever the guidance in this regulation (33 C.F.R. 230, [Corps'] Procedures for Implementing NEPA) is unclear or not specific the reader is referred to the CEQ regulations [40 C.F.R. 1500 through 1508, implementing NEPA]." 33 C.F.R. 230.1.

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n106 The regulations provide guidance and define critical terms, e.g. "indirect effects," 40 C.F.R. 1508.8, "cumulative impacts," 40 C.F.R. 1508.7, and "mitigation," 40 C.F.R. 1508.20.

n107 40 C.F.R. 1502.1, 1502.14, 1502.16.

n108 40 C.F.R. 1502.16.

n109 40 C.F.R. 1502.14.

Despite an agency's temptation to include voluminous scientific material, an EIS should be "analytic rather than encyclopedic." 40 C.F.R. 1502.2(a). "It is not better documents but better decisions that count. NEPA's purpose is not to generate paperwork-even excellent paperwork -- but to foster excellent action. The NEPA process is intended to help public officials . . . take actions that protect, restore, and enhance the environment." 40 C.F.R. 1500.1(c). By overwhelming public officials with mountains of data or reports without concise analytical summaries [*103] thereof, an EIS may serve more to frustrate the goals of NEPA rather than to promote them. The EIS need not be "so all-encompassing in scope that the task of preparing it would become either fruitless or well nigh impossible." *New York Natural Resources Defense Council, Inc. v. Kleppe*, 429 U.S. 1307 (1976) (quoting *Natural Resources Defense Council v. Callaway*, 524 F.2d 79, 88 (2d Cir. 1975)). The document should be concise and clear. 40 C.F.R. 1502.1.

The Court must "look beyond the scope of the [challenged] decision itself to the relevant factors that the agency considered." *Sierra Club* at 1216. As has been firmly established, the duty of the judiciary "is to ensure that the agency took a hard look' at the environmental consequences of the proposed action." *Marsh*, 490 U.S. at 374 (1989); *City of Oxford v. F.A.A.*, at 1351; see also, *Fund for Animals, Inc. v. Rice*, 85 F. 3d 535, 541, 546 (11th Cir. 1996) (Corps not arbitrary or capricious in determination that an EIS was not required for decision to locate landfill in wetlands where no upland site was available); 546, *Skinner* [*104] at 1540. n110 "This duty requires the court to consider not only the final documents prepared by the agency, but also the entire administrative record." *Sierra Club* at 1216. Thus, the Court's role here is to examine in detail not only the EIS but also the entire record to determine whether the Corps considered all relevant factors.

The court will overturn an agency's decision as arbitrary and capricious under hard look' review if it suffers from one of the following: (1) the decision does not rely on the factors that Congress intended the agency to consider; (2) the agency failed entirely to consider an important aspect of the problem; (3) the agency offers an explanation which runs counter to the evidence; or (4) the decision is so implausible that it cannot be the result of differing viewpoints or the result of agency expertise.

Id. (citing *Motor Vehicle Mfrs. v. State Farm Mutual Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)). In the event that the court determines that the action is flawed, remand is the appropriate result -- thereby permitting the agency to reconsider its own reasoning and decision. *Sierra Club* at 1216.

n110 Whether the Court would have reached the same conclusion is irrelevant, "the agency must merely have reached a conclusion that rests on a rational basis." *City of Oxford v. F.A.A.*, 428 F. 3d 1346, 1352 (11th Cir. 2005).

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While the Court looks to the entire record to see if the agency took a "hard look," the final determination is made based only upon the NEPA documents themselves, in other words, the Federal Defendants cannot rely on matters in the administrative record to "correct" errors in the EIS, for NEPA requires that the material be included in the EIS, or a supplemental EIS. *Sierra v. Marsh*, 976 F.2d 763 (1st Cir. 1992) (can verify that EIS is sufficient by reference to record, but cannot rely on record to bolster insufficient analysis in EIS). This is consistent with the statute's mandatory public participation, discussed below, for it would be unreasonable to expect members of the public to search through an entire administrative record in order to find critical environmental information; rather, one must be able to rely on the EIS, or the SEIS, as a comprehensive and accurate guide to the environmental issues presented by the proposed activity. In essence, an EIS has "twin functions" -- preparation of the EIS is designed to require agencies to take a hard look at the consequences of the proposed action, and the distribution of the EIS "provid[es] important information [*106] to other groups and individuals." *Robertson* at 356. An EIS must "detail the environmental and economic effects of proposed federal action to enable those who did not have a part in its compilation to understand and consider meaningfully the factors involved," and to compel the decisionmaker to give serious weight to environmental factors in making discretionary choices." *Sierra Club v. Morton*, 510 F.2d 813, 819 (5th Cir. 1975) n111 (footnote omitted) (quoting *Environmental Defense Fund, Inc. v. Corps of Engineers (Tennessee-Tombigbee Waterway)*, 492 F.2d 1123, 1136 (5th Cir. 1974). An EIS must, at a minimum, alert the reading public to all known possible environmental consequences. *Sierra Club v. Sigler*, 659 F.2d 957 (5th Cir. 1983).

n111 In *Bonner v. City of Prichard*, 661 F.2d 1206 (11th Cir. 1981) (en banc), the Eleventh Circuit adopted as precedent the decisions of the Fifth Circuit rendered prior to October 1, 1981.

Having reviewed the [*107] controlling precedent, the Court now turns to the specific facts found in this administrative record and measures each claim against the statute's requirements.

1. Environmental impact of the proposed action

The EIS must account for direct, indirect, and cumulative impacts of the proposed action. 40 C.F.R. 1508.7, 1508.8; *City of Oxford v. FAA* (11th Cir. 2005); *C.A.R.E. Now, Inc. v. F.A.A.* (11th Cir. 1988). While direct effects are easy to identify, the consideration of indirect effects requires more careful study of an action and its consequences. The CEQ regulations define "indirect effects" as being later in time or farther removed in distance, but still reasonably foreseeable. 40 C.F.R. 1508.8. A cumulative impact is "the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency . . . or person undertakes such actions." 40 C.F.R. 1508.7. For example, the Eleventh Circuit has determined that the future possible relocation of a nearby road to accommodate new navigational aids after an airport [*108] runway has been extended is too speculative to be considered as a cumulative impact of the runway extension project, as is the building of a new passenger terminal. *City of Oxford, GA v. F.A.A.*, 428 F.3d 1346 (11th Cir. 2005).

Impacts may occur in any of a number of areas: ecological, aesthetic, historic n112, cultural, economic, social, or health; previous impacts also must be taken into account, at least to a reasonable extent. The impacts most pertinent to an analysis of the Corps' EIS in this case are those on the municipal water supply (i.e., the Aquifer), the seepage losses to the Park and WCA, the destruction of wood stork habitat, and the increasing urbanization of Miami-Dade County.

n112 The Lake Belt wetlands also contained "several historic properties, including potentially significant sites . . . exist within the proposed project's area of potential effect." AR880.

a. Aquifer/Wellfield contamination

Miami-Dade County's wellfield protection zones were established in 1985 [*109] based upon the generalized survival time of bacteria in soils and groundwater, with appropriate setbacks for mining established to restrict excavations in order to limit the risk of contamination at the deeper levels from which the wells draw water. The basis for the protection zones was the nature of the Aquifer and its permeability.

[Limestone] makes up the Biscayne aquifer, which stores and filters the water supply for Miami-Dade County. Removal of the aquifer material by rock mining leaves the remaining aquifer more vulnerable to contamination from the newly created surface water bodies. . . . Implicit in the creation of wellfield protection zones is the assumption that the hydrogeologic parameters do not vary in time. However, the very nature of rock mining, removing the geologic material, negates this assumption. There is a concern that existing and future rockmining excavations serve to expand the travel time contours beyond those used to define the existing wellfield protection area. . . . Unconfined and located at or near the land surface, the Biscayne Aquifer is made up mainly of layers of limestone and sand. . . . The generally high hydraulic conductivity and the [*110] many passages through the solution-riddled limestone offer little resistance to flow. The result is one of the most permeable aquifers in the world, which quickly responds to slight differences in the water table. As a result . . . the direction and velocity of groundwater flow is strongly influenced by water levels in adjacent canals and other surface water bodies.

AR1176 ("Description and Analysis of Full-Scale Tracer Trials Conducted at the Northwest Wellfield, Miami-Dade County Florida," DERM Water Supply Section, August 2000).

Not only the extraction of limestone but also the pits/lakes left behind after mining pose threats to the Aquifer. According to a report prepared by DERM (and published after the EIS):

The presence of lakes in the vicinity of the wellfield increases the risk to the drinking water supply by two routes. The miles of increasing shoreline provide a route for pathogens, as well as other pollutants, to enter the lakes either via stormwater runoff contaminated with pathogens, infected animals accessing the shorelines, or spills of contaminants near shorelines. A more direct route is via waterfowl flying in to use the lakes. Once in the lake, the [*111] pathogens/pollutants quickly disperse from the shoreline or middle of the lake. Depending on the specific gravity or other factors, the particular pathogen/pollutant will mix through the vertical extent of the lake and be drawn towards the wellfield. Water transport out of lakes and canals into the surrounding aquifer and towards the wellfield is primarily through the porous sides. . . . Modern rockmining techniques now can excavate up to 85-ft. depths, well into the various preferential flow zones of the drinking water wells (40-80 ft.). The preferential flow zones are more porous, providing less attenuation, particularly for pathogens of human health concern.

AR1175 at pp. 35-36 ("Northwest Wellfield Watershed Protection Plan," August 16, 2000). The Corps had sufficient information about these risks even before the above-quoted studies. Strong objections to the mining based upon the wellfield contamination issue began arriving, particularly from Miami-Dade County and its agencies, immediately after the Corps announced the preparation of the EIS in 1992. For example, in July 1992, DERM raised concerns about the effect of the Lake Belt Plan on the Northwest Wellfield's classification [*112] as a ground water supply source. AR44. n113 DERM commented on the Issue Team's final draft report in May 1997, criticizing its lack of attention to the fact that further mining in the vicinity of the wellfield may itself impact the quality of water, and noting the potentially costly modifications that would be required for the current drinking water treatment process. AR485. In May 1999, DERM reported that it could not support the EIS until water quality and buffer issues were addressed fully, and that it could cost at least \$ 235 million to add more filtration and disinfection to Northwest Wellfield "if groundwater becomes under direct influence of surface water as a result of mining". AR605 at 85. n114

n113 In November 1995, Miami-Dade officials highlighted the impact of mining on the quantity and quality of water in the area, and requested that an evaluation of those issues, as well as the related costs, be conducted. AR242.

n114 DERM noted, in July 2000, that the EIS "ignores the potential for microbiological degradation of water quality resulting from warm-blooded animals, such as cattle and mammalian wildlife, which are known carriers of the disease-causing organisms Giardia and Cryptosporidium. Cattle grazing is currently an allowable activity in the vicinity of the wellfield and may continue to exist as rockmining expands. The littoral shelves which are included in the compensatory mitigation proposed in Section 7.1 [of the EIS] will attract mammalian wildlife to the lake edges. Due to the potential presence of these sources of microbiological contamination under the Recommended Plan, evaluation on [sic] of their impacts is warranted. . . . [The EIS also] minimize[s] surface influence concerns and merely recommend[s] a monitoring program that would allow the impact to occur, instead of working to minimize the impacts." AR655.

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The County's water treatment facilities are designed for treating groundwater, and they do so by filtration and disinfection. AR1175. The EIS reported that the excavation of limestone would convert a large portion of the Aquifer to "surface waters," AR614 at 78, and that Miami-Dade County's wellfield protection plan's buffer zone "may be inadequate protection against [potentially deadly] surface water contaminants," AR614 at 69-70. After reviewing the EIS, the County Manager at the time advised the Corps that:

Quarry lakes have the potential to contain substantially more disease-causing organisms than groundwater. . . . Mining rock from the Biscayne aquifer in the vicinity of the wellfield decreases the time it takes for a contaminant to travel from the quarry lake to the wells. Rockmining that may be authorized by the proposed Federal action will exacerbate the existing footprint of lakes in the vicinity of the wellfield. Therefore, the proposed Federal action has the potential to increase the risk of water quality contamination at the wellheads and result in the necessity for upgrading the water treatment plants to treat for disease-causing organisms at the cost of approximately [*114] \$ 250,000,000.

AR654. Despite this caution, the Corps proceeded with the plan to approve the mining.

A review of the record reveals that the Corps approved mining in close proximity to the Northwest Wellfield (and its multiple wellheads from which drinking water is pumped daily) before the risk of contamination had been studied adequately or sufficient data had been collected and, thus, apparently did not fully consider the impacts (direct, indirect, or cumulative) of the mining activities, in violation of NEPA. According to the EIS, the proposed mining plan "may compromise the existing wellfield protection program." AR614 at 88. The EIS references a wellfield protection subcommittee that "has identified tasks that must be completed" to analyze properly the existing wellfield protections, and notes that if impacts to the wellfield are identified, "activities required to mitigate those impacts will be identified." AR614 at 88. n115 "At this time, it has not been determined what is needed as a safe buffer to protect the water supply. . . . This information might not be available until the completion of the Phase II Master Plan in December 2000." AR614 at 70. n116 The only other [*115] information provided to the public on this topic before the permits were issued is contained in the Revised Public Notice, which states that additional restrictions had been proposed on mining near the Northwest Wellfield to allow "time for Miami-Dade County to complete a risk analysis and consider modifications" to its wellfield protection ordinance. AR737. The restrictions are not defined, although maps are included for each of the mining companies, purportedly showing the location of mining for the first three years under the proposed permits. Even if the Court were to consider the Revised Public Notice as being a supplemental part of the NEPA document, i.e., the EIS, it still falls short of properly advising the public or public officials of the risks of contamination and what can be done to eliminate those risks, particularly in light of post-EIS reports which specify the risks clearly.

n115 This vague statement does not even commit to requiring mitigation -- it simply states that mitigation activities "will be identified."

n116 The ROD does little to remove this uncertainty. "There is a risk of contamination of the public wellfield, but the permit includes provisions to minimize that risk." AR1028 at 80.

[*116]

The Corps has a duty, when evaluating "reasonably foreseeable significant adverse effects" n117 such as contamination of a municipal drinking water source, to provide all information that is "essential to a reasoned choice among alternatives" -- or, if such information is unavailable -- to summarize "existing credible scientific evidence" and the agency's evaluation thereof. 40 C.F.R. 1502.22. The Corps should have recognized that it lacked essential information and, particularly in light of the anticipated completion of the County's wellfield protection review, should have been more conservative as to this risk.

The most conservative protection for the wellfield is to eliminate all human activity around the unmined aquifer and lakes near the wellfield, except for the existing wellfield utility maintenance activities. This would entail purchase and transfer of private land into county ownership. This is a costly endeavor [estimates yet to be determined]. . . . The most stringent protection will be applied to the inner lake protection zone. These lakes will be closed to public access and not be biologically enhanced in order to minimize pathogenic [*117] risk to surface and groundwater closest to the wellfield. . . . The proposed outer protection zone encompasses lakes to be used for passive recreation and biological enhancement. . . . Because past and future rockmining activities have caused this wellfield to be uniquely vulnerable to pathogenic risks, legislative actions should be pursued to ban animal and aquaculture operations, at a minimum, from the Northwest Wellfield's inner lake zone.

AR1175 at 45-53.

n117 The term "significant" as used in NEPA requires "considerations of both context and intensity." 40 C.F.R. 1508.27. An action insignificant in itself may be significant for NEPA purposes if it is "related to other actions [past, present, and reasonably foreseeable future actions] with individually insignificant but cumulatively significant impacts." 40 C.F.R. 1508.27(b)(7). The potential risk to the Aquifer qualifies as a "significant" adverse effect.

The County and its agencies requested [*118] a public hearing and recommended denial of the permits, even for the reduced period, since no adequate program had yet been developed to protect the Northwest Wellfield. AR791B. The EPA also requested that special conditions be imposed on the water quality monitoring and that it begin promptly, AR820. n118 The Corps took a positive step toward protecting the Aquifer by rejecting the mining industry's attempt to avoid the wellfield restrictions n119 and imposing Special Condition 7 which requires monitoring of water quality and a review at the conclusion of the initial three years. (As noted above, this initial review already has been delayed by almost a year.) These efforts provide little assurance, however, because even if the probability of contamination is low (which it may or may not be), the consequences are great. The concern is not just as to the existing quarry pits, which already have caused groundwater seepage to occur (it is unclear from the EIS whether the Corps took this into account in determining the baseline from which to judge future impacts), n120 but also as to the ongoing mining and future pits. The Corps seems to be tolerant of mining even as it creeps closer to [*119] the wellfields/wellheads, unless or until there is a confirmed incidence of contamination. The future pits will be much larger and potentially closer to the wellheads, which "will further compromise the natural filtration processes that currently exist at the Northwest and West wellfields." AR605 at 88.

n118 The Court notes with interest the parties' discussion, in their briefs, regarding a post-permit offer by one of the mining companies, Tarmac America. According to the Industry Defendants, Tarmac has agreed to convey property within the wellfield setback area, i.e., within the 2,500 foot area in which mining and development are prohibited by the County, in exchange for the right to mine other County-owned property on a royalty basis. The anticipated royalties reportedly would generate \$ 70,000,000 (over some unspecified period of time and acreage) which might facilitate the County's installation of water treatment facilities to prevent or treat any

contamination of the drinking water. Industry Defendant's Motion for Summary Judgment, Docket Entry # 36, at 17 n12. News of this unconfirmed arrangement played no part in the Corps' decision to issue the permits, nor does it factor into this Court's analysis.

[*120]

n119 The industry noted in September 2000 that it was "concerned about delays if the County has not acted to amend the Ordinance at the 3 year review and there is some disagreement about whether there is a risk within the Inner Protection Zone. [The permit template] seems to imply the likelihood that compelling data of risk will emerge and places the burden on the miners to rebut such a presumption. In our view, the burden should be on DERM and WASD to come forward with such compelling evidence." AR706.

n120 The Corps' analysis of past impacts was brief. "Past actions within the established geographic boundaries for resource evaluation have resulted in impacts to the environment. It is not possible or necessary to quantify and qualify the conditions of the entire Everglades ecosystem prior to the first impacts of man and identify each subsequent action and its impacts." AR614 at 89.

The Corps ultimately avoided these water supply issues in the EIS (and ROD), claiming to defer to the County what should have been the Corps' responsibility. A senior Corps staff member stated that "I do not [*121] think Corps needs to get in a position of deciding how much protection is warranted for the wellfield. . . ." AR602. As further general evidence of the inadequacy of the Corps' consideration of the wellfield contamination issue, the Court observes that the scientific or technical reports listed in the EIS references that are related to water, e.g., a 1978 study entitled "Investigations of ground-water conditions at borrow pits 7, 9, and 10, Miami-Dade County, Florida," AR614 at 109, are nearly all more than twenty years old or relate to water bodies in other states, e.g., Michigan, Wisconsin. Even a non-scientist recognizes that this poses a problem in the ever-changing world of South Florida's ecosystem.

In conclusion, the Court cannot determine that the Corps' decision relied on the relevant factors. The Corps either should have waited for the County to complete its studies of wellfield protection, or the Corps should have done its own study. Also, the agency's explanation for its failure to impose greater protections, i.e., that it was the County's decision, runs counter to the clear evidence from the scientific reports in this record which expose the risk of contamination, and [*122] the Corps' regulatory duties to protect the environment.

b. Seepage losses to the Park and WCA

Another area in which the EIS lacks sufficient detail is in its hydrological analysis. According to the EIS, there is a "very high ground water seepage rate" that is causing injurious "declining water levels and hydroperiods" in the Everglades Protection Area and the Pennsuco wetlands, AR614 at 24, and seepage rates will increase with an increase in the acreage of mining, particularly if the new quarries are located near the western edge of the Lake Belt. AR614 at 77. In a total of less than two pages of analysis, the EIS concludes that "although . . . there are potentially significant impacts to large-scale increases in mining, it also seems true that there are readily available strategies to mitigate for these impacts. . . . It is also clear that time is available to complete a more definitive analysis and prepare the appropriate solutions." AR614 at 77. This apparent reference to the incremental nature of the seepage impacts, i.e., they grow worse as more mining occurs, demonstrates that the cumulative impact of this mining will be significant and will adversely effect the adjacent [*123] wetlands (e.g., WCA-3B and the Pennsuco); n121 thus, it was error for the Corps to have paid so little attention to this issue.

n121 The ROD does not remedy this deficiency in the EIS. While the permits do "require the Permittee to implement measures to prevent the seepage loss," they also note that "if the impact cannot be avoided, the result would be a reduction in water depths and duration in the adjacent wetlands," AR1028 at 81, apparently anticipating such an occurrence but not imposing or even specifying any prevention measures.

As early as March 1997, ENP advised the Corps that rock mining increases the seepage of needed water from the Park since mining increases the aquifer's ability to convey water. AR439. FWS also noted that required restorative flooding levels in the WCAs and ENP will lead to increased water levels along their borders to the east, and that will

require that seepage be controlled -- a difficult task since mining aggravates the seepage problem. AR464. The National Audubon Society [NAS] [*124] already had provided its comments to the Corps regarding seepage issues.

The Lake' Belt is in one of the areas of greatest groundwater transmissivity in the entire Everglades region. Unfortunately there is a belief among some groups that stacking water in a quarry pit actually inhibits seepage. This misconception needs to be rectified. Simply put, water flows through water with less resistance than water flows through rock, even porous rock. NAS EERC [Everglades Ecosystem Restoration Campaign] has a grave concern that quarry pits may actually exacerbate seepage losses from the Everglades. This concern is heightened by the fact that millions of tax dollars are being spent on Everglades restoration, with the goal of improving water timing, delivery, quantity, and quality to the Everglades. Water loss from abandoned quarry pits in the Lake' Belt have the potential to negate much of the benefit gained through the expenditure of public dollars in the restoration effort. . . . Although structural seepage barriers have been proposed as the solution to seepage problems, NAS EERC contends that under many circumstances this may not be the best solution. In addition to the high costs [*125] of seepage barrier installation, there is a concern regarding the permanency of the barrier. . . . removal is for all practical purposes unrealistic. . . . A structural barrier [also] may actually cause draw down of the aquifer by impeding groundwater flow.

AR340.

Approximately one year before the Corps published the final EIS, the Governor's office urged the Corps to explain the connection between the planned mining in the Lake Belt and the CERP/Restudy project components, as well as "how feasibility and seepage control studies will be used in the decision-making on [Lake Belt] permits. . . . The future healthy functioning of the Everglades ecological system and the future water supply of Miami-Dade County will be dependent upon the outcome of these issues." AR605 at 73. The EIS was issued, nevertheless, without detailed recommendations for seepage control.

Shortly after the final EIS was released, ENP reported that "there is an increasing trend in the seepage lost . . . to the east from WCA-3B. . . . The increased groundwater flow to the east resulting from the lakes appear to be the primary reason for the declining water levels and hydroperiod in Pensuoco [sic] wetlands. [*126] . . . The water delivery to the North West Well Field appears to decrease significantly . . . with extensive lakes in the Lake Belt area." AR614 (August 21, 2000).

EPA has concerns about the impacts of future mining as it relates to seepage losses from Everglades National Park, Water Conservation Area-3B, and the Pennsuco Wetlands. Absent implementation of some significant contravening measures, this groundwater movement to the east will have even larger importance on the area's wetlands. . . . There remains some significant uncertainties associated with the effectiveness of subsequent assessment/planning measures as well as in ascertaining whether even known losses can be mitigated to acceptable levels.

AR 713, FAR41 (September 20, 2000). "Previous experience attests to the fact future developmental actions will make sustaining desired water quality standards difficult." AR713. n122 The ROD ultimately imposed a Special Condition (Special Condition 3), which imposes on the permittee responsibility for avoidance measures or compensation for effects of changes in groundwater flows, but without specifying what that will require. "The actual plan will be submitted in a [*127] future year once, as discussed elsewhere in this memorandum, revised modeling and the design of the CERP are further along." AR1028 at 74. This is far too vague to be in compliance with NEPA, and its open-endedness violates the requirement that permit conditions be "reasonably enforceable" -- found in 33 C.F.R. 325.4(a).

n122 EPA also noted that "any [permit decision] based solely on the [EIS] would be incomplete/premature because resolution of these critical environmental issues [mitigation, land use planning conflicts, wellfield issues, etc.] is deferred until completion of the [Phase II Master Plan]. AR713.

Seepage losses, particularly when they are certain to result from the proposed activity, are within the range of indirect effects required by NEPA to be studied in some detail. n123 To ignore this indirect effect "would be to [allow the Corps] to wear blinders that Congress has not chosen to impose." *Riverside Irr. Dist. v. Andrews*, 758 F.2d 508, 512 (10th Cir. 1985); [*128] see also, *National Wildlife Federation v. Coleman*, 529 F.2d 359, 374 (5th Cir. 1976) (proposed highway construction's indirect impacts included residential and commercial development that would develop around the highway interchanges). Rather than providing an adequate evaluation, backed by "accurate scientific analysis," 40 C.F.R. 1500.1(b), the Corps postponed examination of the seepage question indefinitely and, essentially, left its NEPA obligation for a future time. n124 Delay of this critical analysis was an unacceptable deviation from the regulatory framework and, as such, requires remand.

n123 Threats to the habitat of the endangered whooping crane caused by a reduction in water which was caused by a change in the flow of a tributary stream which, in turn, was caused by construction of a dam, were indirect impacts required to be considered under NEPA. *Riverside Irr. Dist. v. Andrews*, 758 F.2d 508 (10th Cir. 1985) (denial of nationwide CWA permit for construction of dam due to resulting threat to habitat of endangered whooping crane). These threats to the whooping crane are even more attenuated than the indirect seepage impacts which are certain to occur as mining increases in the Lake Belt.

[*129]

n124 The point discussed, above, regarding the staleness of the scientific studies relied upon in the EIS also applies to the question of whether groundwater seepage effects were adequately analyzed.

c. Wood stork habitat destruction

The EIS announced to the public that the proposed mining plan would have "no effect" on any Federally listed species, AR83, and that the project was fully coordinated with FWS, pursuant to "formal consultation" and was "in full compliance" with the ESA, AR614 at 101. This conclusion was reached without the benefit of either a Biological Assessment or a Biological Opinion, as discussed, *infra*, and misrepresents the nature of the Corps' consultation with FWS at the time. The EIS discusses the wood stork in a total of approximately one-half of a page, AR614 at 49, 83, and fails to report that hundreds of acres of wood stork foraging habitat will be destroyed -- a fact which should have been addressed in the NEPA document. n125 The Corps simply determined that there will be no loss of habitat functions since wildlife will be displaced from mined lands to [*130] restored lands. AR956. The Court discusses this issue in more detail in the section, below, which evaluates the Corps' compliance with the ESA, but briefly notes here that both NEPA and the ESA require that direct and indirect effects on protected species be considered. *Riverside Irr. Dist. v. Andrews*, 758 F.2d 508 (10th Cir. 1985) (Corps properly considered indirect effects of permit to construct a dam and reservoir, on whooping crane habitat downstream). The Corps' failure to consider not only the direct effects (e.g., foraging habitat loss), but also the indirect effects (e.g., potential relocation of breeding rookeries, etc.) on the endangered wood stork renders the EIS fatally flawed. n126

n125 It may be that financial restrictions limited the agencies' analysis of impacts on protected species. FWS had stated earlier that it had no funds to conduct wildlife analyses. AR83.

n126 The ROD offers little improvement in this area. "The project is . . . expected to result in no change in wildlife utilization compared to before mining, although on a smaller area of land." AR1028 at 79.

[*131]

Although prior to publication of the final EIS the Corps had obtained the FWS' concurrence that the proposed mining project was "not likely to adversely effect" any protected species", the FWS announced on April 30, 2001, that it was not able to concur with the Corps' recently announced conclusion n127 (which restated its earlier determination) without receiving supporting information. AR824. FWS observed that no biological evaluation was included in either Public Notice issued by ACOE, nor had the EIS provided a thorough analysis of the potential effects -- including cumu-

lative effects -- on the species. AR824. Thus, FWS identified that NEPA had not been met and this Court agrees. The Corps failed to carry out its NEPA-imposed duty to consider "the environmental impact" of the proposed action, 42 U.S.C. 4332(C)(I), 40 C.F.R. 1502.1, particularly by failing to include accurate scientific analysis regarding an endangered species known to be within the area of the proposed mining. 40 C.F.R. 1500.1(b).

n127 On March 1, 2001, the Corps had announced in the Revised Public Notice that the proposed mining was "not likely to adversely effect" any protected species. AR737.

[*132]

d. Increasing urbanization of Miami-Dade County

Indirect effects may include growth inducing effects, 40 C.F.R. 1508.8, particularly if that growth might not occur without the project's influence. Impacts that "could likely occur at the site or in the vicinity whether or not the permit is issued should not be given much weight." William L. Want, *Law of Wetlands Regulation* § 6:64, at 6-58 (2005). The EIS reports that "continued westward urban expansion of Miami" is a reasonably foreseeable action related to the proposed mining plan, AR614 at 89, and that it will result in "negative impacts," AR614 at 90, but provides no analysis of the specific impacts other than to state that they will be "confined primarily to the immediate area." AR614 at 90. (The EIS also suggests that mined rock from the Lake Belt will have a statewide value.) There is nothing in the EIS that supports a conclusion that westward urban expansion of Miami would occur whether or not the mining continues in the Lake Belt, nor is there anything to show that the adverse effects of the mining-related development will be "confined." n128

n128 Plaintiffs claim that the aesthetic value of the Lake Belt was not considered, but it appears that the Corps briefly addressed this point. The Lake Belt has a relatively consistent, i.e. little or no diversity, visual appearance as wet prairie with tree stands of melaleuca. "This perception of minimal diversity results not only from the subtle differences in landscape form, color, and texture, but is also a result of the dynamic mode of the average observer (from an automobile). The natural appearing landscape remains dominant. Changes in the landscape are evident, i.e., quarry lakes, but not dominant." AR614 at 67. Obviously, increasing the acreage of mining will cause the quarries to become more dominant and will decrease the natural aesthetic value of the landscape; and this cumulative impact should have been addressed in the EIS.

[*133]

A cumulative impacts analysis requires that the present action be considered along with reasonably foreseeable future actions. Clearly the production of limestone-based concrete and cement will lead to greater urbanization anywhere in which the rock is used, and it was error for the EIS to ignore this element. "More strongly related indirect impacts should be given heavy consideration, while more attenuated impacts should be considered, but less heavily." Regulatory Guidance Letter ("RGL") 88-11 (effective August 22, 1988, expired December 31, 1990), *reprinted in* William L. Want, *Law of Wetlands Regulation* (2005). To the extent that future specific uses of the mined rock in non-contiguous areas, i.e., areas not adjacent to the Lake Belt, are unforeseeable, the Court finds that the Corps properly declined to conduct further study. This conclusion, however, does not relieve the Corps of considering the development, at a minimum, of the Lake Belt area itself which will occur as a direct result of the mining. For example, additional roads and infrastructure to support the mining will be developed, and there will be more truck and rail traffic to process the mined rock. n129

n129 Moreover, as noted by the FWS, it was inappropriate for the Corps to credit the mining permit applicants with stimulating economic growth but not to charge them with the costs suffered by the environment consequent to such growth. AR712.

[*134]

In a recent decision by another member of this Court, the Corps was ordered to consider the cumulative effects of future planned development even if such development had not yet been specifically proposed. Florida Wildlife Federa-

tion v. U. S. Army Corps of Engineers, 401 F. Supp. 2d 1298, 1326-1328 (S.D. Fla. 2005). While the limestone mining in the present case is not as obvious a catalyst to development as the biotechnology research park at issue in Judge Middlebrooks' case, it is nevertheless this Court's conclusion that the future urbanization of the Lake Belt and at least the surrounding areas to the eastern side of the Lake Belt should have been considered by the Corps as a cumulative effect of the proposed mining plan. n130

n130 The Corps rejected requests that the EIS be expanded to include the direct, indirect and cumulative effects on other wetlands in Florida as a result of placement of the mining products. "If wetlands are impacted by the placement of fill and subsequent construction, this activity would be addressed by a Section 404 permit that covers that particular activity." AR586. The ROD acknowledges that "secondary effects . . . are those resulting from the use of the material mined. . . . The mined material is processed into cement, crushed rock, and fill products that are used for construction throughout the State. Some of this could be used as fill in wetlands but these uses are regulated individually through 404 permits." AR1028 at 59.

[*135]

The Court is troubled by the underlying theme of the Corps' ROD which suggests that the permits at issue have been designed to be extended to the full fifty year mining plan. As is evident from the ROD, the Corps has not shelved the larger plan, but rather just delayed its implementation until the first period of mining is complete. Record evidence shows that the purpose of permitting mining in the Lake Belt is to serve a predicted need from Florida's rapidly increasing population growth rate, and there is nothing to suggest that the growth rate will slow significantly. Thus, the Corps' simple dismissal of the negative impacts of development, even as to just the Lake Belt and nearby area, violated NEPA's requirement that all indirect effects be addressed. 40 C.F.R. 1508.8.

2. Consideration of adverse environmental effects which cannot be avoided if the proposal is implemented (i.e., the mitigation plan)

The Corps' EIS identified various serious impacts, as noted above, n131 and thus the Corps was required, by NEPA, to first attempt to avoid these impacts and then to minimize whatever was unavoidable, and, finally, to mitigate for any unavoidable [*136] adverse effect.

Implicit in NEPA's demand that an agency prepare a detailed statement on any adverse environmental effects which cannot be avoided should the proposal be implemented,' is an understanding that the EIS will discuss the extent to which adverse effects can be avoided. More generally, omission of a reasonably complete discussion of possible mitigation measures would undermine the action-forcing' function of NEPA.

Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 351-52 (1989). n132 The Corps and EPA have entered into a Memorandum of Agreement ("MOA") on Mitigation, n133 which adopted the sequencing approach that had been used by EPA: generally not considering mitigation as a factor in favor of issuing a permit but rather requiring it after the permit proposal is determined to meet permit criteria independently of mitigation. n134

n131 The Corps' identification of the serious impacts was not accompanied by an adequate analysis thereof.

n132 "Although NEPA does not mention mitigation, by administrative practice and regulation mitigation, including conservation-type mitigation, plays an important role in the discharge by federal agencies of their procedural duty under NEPA to prepare an EIS." Thomas J. Schoenbaum and Richard B. Stewart, *The Role of Mitigation and Conservation Measures in Achieving Compliance with Environmental Regulatory Statutes: Lessons from Section 316 of the Clean Water Act*, 8 NYU Env'tl. L. J. 237, 276 (2000).

[*137]

n133 The Memorandum of Agreement Between the Environmental Protection Agency and the Department of the Army Concerning the Determination of Mitigation was revised, effective date February 7, 1990, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997).

n134 According to the Mitigation MOA between EPA and the Corps, which coordinates respective duties under § 404, a project is to be assessed first without considering proposed mitigation. Margaret N. Strand, *Wetlands Deskbook* 132-33 (2d ed. 1997).

The CEQ regulations direct that mitigation measures be discussed, 40 C.F.R. 1502.14(f), 1502.16(h), 1505.2(c), 1508.25(b)(3), but a mitigation plan need not be fully developed in the EIS, see *Robertson v. Methow Valley*, 490 U.S. 332 (1989). It is important, however, that the NEPA document contain all of the relevant information about the impacts of mining as well as the planned mitigation for those impacts. "Nothing should be left to good will among agencies or to [*138] personal recollections." FAR97.

Mitigation is compensatory, and has been interpreted to require a replacement of the functional value of the wetlands, that is, there should be no net loss of wetland values. In February 1998, the Corps held a meeting of its branch chiefs to discuss mitigation, and decided that the basic assumption underlying the mitigation evaluation should be to restore the wetlands in context of the entire ecosystem. Neither an "as is today" or "as it should have been, i.e., pine flatwood wetland, pre-impact with invasive species" approach was selected, but rather a more tailored approach toward restoration based upon the specific function being performed by the specific wetland at issue. AR545. n135 The analysis of wetland values in the present case was extensive; n136 however, the results were not applied in the Corps' decision-making process. Many attempts were made to assess the value of the existing wetlands on which the miners wish to mine and construct supporting infrastructure, e.g. roads, work pads, etc. The Court already has addressed the importance of accounting for previous impacts on degraded wetlands, and the Corps' limited evaluation of such impacts [*139] here, when determining the adverse effects of a proposed action. The Corps' predictions of future impacts were similarly limited; for example, the Corps noted that the impact on groundwater seepage is "not immediate: it increases as the mining proceeds. The recommended plan is based on 50 years of mining so the total effect will not be seen until then. . . . The current discussions are to determine the appropriate mitigation measures to be incorporated into the master plan to be reported to the State Legislature by December 31, 2000." AR614 at 99.

n135 At the end of this meeting the question was raised by Corps staff as to whether there would be a public notice to announce this "fundamental change in how we do functional assessments on wetlands" as to projects greater than three acres. AR545.

n136 The Corps' mitigation analysis in the EIS benefitted from the work of both the Lake Belt Committee and the Issue Team, as well as an interagency meeting held in August 1996. The Lake Belt Committee's report in 1997 proposed that mining be concentrated toward the east and that the industry fund the acquisition and restoration of lands toward the west, which was accepted and adopted by the Florida Legislature. AR1028 at 35.

[*140]

"The compensatory mitigation proposed for this project consists of the restoration or enhancement of degraded wetlands within the region and creation of littoral zones adjacent to the quarry lakes." AR614 at 91. The EIS also briefly identifies specific mitigation measures to protect the wellfields, including the construction of a berm around the Lake Belt to prevent direct entry of surface water runoff and the prohibition of any future development of western areas as well as using land use regulations to prevent urban runoff from negatively impacting the Northwest Wellfield, AR614 at 82-83. Very little is discussed regarding the seepage impacts other than to say that water control structures might help, but that they would require more water in the overall system. Nowhere is it discussed that if the Aquifer becomes contaminated, such that its classification changes to groundwater under the influence of surface water, there will be an unpaid bill in the amount of \$ 250,000,000 in order to treat the water.

Some of the strongest criticisms of the EIS were based upon the insufficiency of the mitigation plan. n137 Indeed, the admitted insufficiency of the mitigation n138 was the Corps' [*141] impetus for reducing the permit period to ten years. n139 In October 1997, the Department of the Interior delivered comments to the Corps regarding the inadequacy of the mitigation plan.

The mitigation plan proposed by the Northwest Dade County Freshwater Lake Belt Committee during the Spring, 1997, legislative session of the Florida Legislature accounted for only direct wetland loss and concluded that the amount of mitigation necessary to neutralize rockmining impacts to wetlands was approximately half that required by other development activities. The justification for the reduced mitigation requirement was that the lakes left behind by rockmining were ecologically superior to other types of development and, therefore required less mitigation. We question the scientific basis for this assumption. Deep lakes are not part of the natural landscape of south Florida; they are also biologically unproductive and functionally-impaired. The mitigation ratio proposed, to date, does not and cannot compensate for the biological functions lost when shallow herbaceous marsh is replaced by deep lakes and violates the no net wetland loss' directive.

AR512. n140 The Plaintiffs refer [*142] to several objections raised as to the mitigation plan in the original fifty-year mining plan, as discussed in the EIS, n141 some of which remain valid even though the duration of mining was reduced to ten years. For example, several months after the Corps announced the reduction in the permit periods, FWS continued to question the adequacy of the proposed mitigation. AR948. n142 The Court will address the Corps' discussion of mitigation in the EIS, with a view toward modifications, if any, that were made in light of the reduction of the permit period to ten years.

n137 The EIS candidly states that the mitigation discussion is incomplete, but that it will be completed "during the permit application review process and finalized as part of the permit decision after this EIS document is finalized." AR614 at 98. "The details of the mitigation will be completed during development of the Phase II Master Plan for the Lakebelt area. . . . The principal feature of the Recommended Plan is the on going development of a comprehensive hydrologic and wetlands mitigation plan and a funding source to accomplish the plan." AR614 at 10.

[*143]

n138 As to the 50 year plan, the Pennsuco was inadequate as a source for all mitigation. "The complete restoration . . . [of the Pennsuco] would result in an approximate 1,808.41 habitat unit increase in the functions and values of this area." AR614 at 93. "Approximately 23% of the functions and values of the wetlands impacted are mitigated through restoration/enhancement of degraded wetlands within the study area. Additional mitigation sites will need to be identified for the project to achieve complete mitigation." [refers to section 7.0 for detail] AR614 at 93, 103.

n139 In early 1998, a senior Corps staff member noted that the permit duration would be based on how much mitigation was projected to be available from the Pennsuco wetlands area. AR544. After the EIS was issued, and after the permits had been reduced to ten years, a Corps staff member noted that "If we went for a longer footprint/longer permit they wanted us to specifically identify the additional mitigation outside of Pennsuco. . . ." AR865.

n140 Criticisms of not just the ratio but also the calculation of the fee per ton of rock were received by the Corps, and in February 1998, the Corps staff expressed their own concern as to whether the draft mitigation proposal was based on proper assumptions. The Corps was concerned whether SFWMD's costs/acre would hold over fifty years at an estimated 7.8% annual growth rate, and whether or not other non-Pennsuco mitigation lands will cost \$ 6,142/acre to buy/restore. AR552.

[*144]

n141 For example, in July 2000, DERM recommended denying the permits because the mitigation described in the EIS was "wholly inadequate." AR65.

n142 EPA also noted a lack, in April 2001, after the announced reduction, of critical information to assess the proposed mitigation plan, and observed that the Lake Belt Committee Phase II plan didn't provide the information as had been anticipated by the Corps and others. AR820.

a. Mitigation Math

While a certain amount of flexibility in a mitigation plan is necessary and advisable, n143 there must be enough definition to allow for a meaningful review and evaluation of the plan to ensure that it would be successful. An agency must exercise particular care when the mitigation requires restoration of a large number of acres and the location of those restored acres is critical to, e.g., limiting groundwater seepage. While the use of a mitigation fee per ton positively correlates to the amount of impact, it also creates difficulties by shifting the focus to "mine now, mitigate later" since the mining will take place first, followed by payment [*145] of the fee, then followed by expenditures for mitigation.

n143 As previously noted, the Corps' 1983 ROD on mining limestone in the Lake Belt area determined that permits should be reviewed individually, to allow for flexibility to accommodate "the needs of the people, the socioeconomic values and industrial demands, and future technical data which may become available and which would pertain to impacts of the activity to the overall system." AR3.

i. The ratio

The Court will only briefly address the question of the adequacy of the Corps' mitigation ratio of 2.5:1, since a complete discussion of Habitat Units, lift, and other aspects of the Corps' mitigation analysis are not necessary here. An interagency meeting was held in 1996 regarding wetland values and the calculation of mitigation, i.e., how many acres of restoration to require for each acre of mining impact. At that meeting the "Corps, DEP, SFWMD and DERM agreed to apply a 2.5:1 ratio within the entire basin for the acquisition, enhancement and perpetual [*146] maintenance of the wetlands in the Pennsuco. If the development ratios were applied to the same table, the resulting mitigation ratio would be 4.6:1." Staff concluded that costs per acre for Pennsuco lands were \$ 5,000, so the actual contribution required for each acre mined would be 2.5 times \$ 5,000 = \$ 12,500. FAR131. Corps staff admitted that the 2.5:1 ratio had "a fairly large fudge factor." AR500. At some time in the next year, the Corps conducted a Wetlands Rapid Assessment Procedure (WRAP) n144 for the Pennsuco. The acreage ratios calculated pursuant to the WRAP were 3.65:1 (the Corps' stated preference for individual permits), and the ratio calculated pursuant to a modified version of WRAP known as MWRAP (used for large scale projects such as mitigation banks n145), was 5.93:1. AR618 at 245. "Based on the WRAP score that was done for the Lakebelt study . . . , we would be requesting mitigation at a ratio of about 3.5 to 5.5 to 1. This is a big jump from where we were at before, but we always knew that we were undermitigating." AR532 (November 14, 1997). In discussing other mitigation ratios in a nearby area, i.e., within the East Turnpike Basin, the Corps observed that it had [*147] "been progressing in increasing the amount of mitigation required targeting the Pennsuco area. We started at about 0.5:1 and most recently required 1.7:1." AR532. The mitigation ratio was established as 2.5:1. n146 By the time the draft EIS was distributed, the agencies were using a cost estimate to acquire/restore one acre of Pennsuco wetlands as \$ 6,142. AR614 at 98.

n144 A WRAP assesses six factors in a system to determine its functional wetland value: wildlife utilization, vegetative groundcover, vegetative overstory, upland/wetland buffers, hydrology, and water quality inputs. Each factor is assigned a score between 0 and 3 based upon standardized criteria, all final scores are added and then divided by the maximum score possible to determine the functioning value for a particular system. FAR94.

n145 Mitigation banks provide replacement functions and values, expressed as credits, for unavoidable adverse impacts. For example, Florida Power and Light is the "owner and operator of the Everglades Mitigation Bank, the largest permitted mitigation bank in the United States. The Everglades Mitigation Bank is located on approximately 13,249 acres of freshwater and estuarine wetlands in Dade County, Florida." AR605 at 212.

[*148]

n146 Confusingly, a senior Corps staff member later references a mitigation ratio of 2.78:1 as having been calculated for the EIS, and notes that he had "finally calculated the ratio . . . reflecting [certain] assumptions, [e.g., water quality stays constant, sawgrass prairie used as reference for mined lake and littoral assessments]." AR618 at 246-48.

DEP took a strong position with the mining industry that the 2.5:1 n147 and \$ 6,142 cost per acre were non-negotiable, which apparently contributed toward the miners' walking out of a meeting with the Corps and others in March 1998. n148 The miners rejected the federal agencies' proposal, which initially included an \$.08 per ton fee, even though the "agency folks had worked real hard to come up with a balanced proposal." AR562. n149 In light of the several higher ratios which were developed but ultimately discarded by the Corps, the Court has serious concerns as to whether the final determination of 2.5:1 is adequate to replace the lost value of the wetlands.

n147 Although the EIS specified that "increased mitigation will not be required for areas currently permitted when the permits expire," AR614 at 99, the Corps adopted the 2.5:1 ratio to apply to all mining -- not just mining under the new permits but also under the extended prior permits, which displeased the mining companies. In early 1999, EPA economists also developed a formula to account for mitigation as to mining that had occurred from October 1, 1998, to September 30, 1999, and any related outstanding mitigation. The formula provided a "kicker" of 2.1% to the mitigation calculations. SAR1336 at 2428, 2426-7 (originally part of AR666). The companies argued that they should be grandfathered in from prior permits, which reportedly generally had required only one acre of restoration for every ten acres of impact. AR956. Just prior to issuing the ROD, the Corps modified its calculations based on the mining companies' objections. AR1009.

[*149]

n148 This result prompted one Corps staff member to inquire as to whether the Corps could force the Florida Rock takings case along. AR560.

n149 An EPA staff member reported that the miners were upset about the settlement of the takings case and the areas of mitigation to be determined as a result of the Lake Belt process, announcing that they would hire an economist to talk with the EPA economist. AR560. The agencies' plan included a credit to the mining companies of \$ 2,500 per acre of property owned within the Pennsuco; and a total of 3,740 acres to be transferred "up front." AR560.

ii. The fee

A key component of the mitigation plan is the collection of a mitigation fee, imposed by the State of Florida on all limestone from the Lake Belt area. The \$.05 per ton, which increases each January 1, is based upon an overall mitigation ratio of 2.5 acres of restored wetlands for each one acre mined, assuming that the cost to acquire and restore one acre of Pennsuco wetlands is \$ 6,142. AR614 at 98. The mitigation fee is collected by the State and held in a Mitigation Fund overseen by [*150] a multi-agency panel. Fla. Stat. § 373.41492(2). n150 The fee is in addition to on-site hydrological mitigation, including the construction of shelves, which first were calculated as surrounding each one mile square lake. n151 The fee per ton established by the state legislature is recognized by the Corps as the administrative mechanism by which the miners are providing compensatory mitigation to satisfy Federal requirements. n152 The use of fees paid, e.g., by a developer, to fund mitigation instead of providing it directly has grown over the past decade. n153 These "in-lieu-fee arrangements" were discussed in the 1995 federal agencies' Guidance issued regarding the establishment and use of mitigation banks, and further guidance was provided in 2000 by a multi-agency panel. Such arrangements should be "self-sustaining" and "land acquisition and initial physical and biological improvements should be completed by the first full growing season following payment of the initial funds. . . ." 65 Fed. Reg. 66913 (November 7, 2000).

n150 "If a general permit by the US Corps, or an appropriate long-term permit for mining, consistent with the Miami-Dade County Lake Belt Plan, this section, and ss. § 373.4149, 373.4415, and 378.4115 is not issued on or before September 30, 2000, the fee imposed by this section is suspended until revived by the Legislature."

[*151]

n151 The revised mining plan allowed for larger lakes, however, which resulted in less littoral shelves. A senior Corps staff member noted that this issue was addressed by calculating mitigation requirements based upon the percentage of deep mined area. AR616.

n152 "The Corps permit will differ from the State's. They have the fee per ton since the Legislature says so. The Corps permit template recognizes the fee-per-ton as a mechanism but provides criteria that the replacement of functions (based on reports from the interagency committee) balance the actual impacts (based on actual rate of mining) using the WRAP-based methodology (0.18 units in Pennsuco/0.45 units mining)." FAR16.

n153 See Fed. Reg. 66914 (Nov. 7, 2000). William L. Want, Law of Wetlands Regulation § 6:43, at 6-40 (2005).

The Corps has noted that the fee per ton was based on a 50 year cash flow table estimating 300 acres mined for each of 50 years, and that the "mine-now-mitigate-later" approach was developed to keep the fee at no more than \$.05 per ton. AR956. The length of the initial period of proposed mining [*152] made economic predictions difficult.

The agencies [sic] economists feel extremely uncomfortable making economic forecasts over a long period of time (i.e., 50 years). Therefore, they recommend that a revisitation' clause be included in the 404 permit so that representative and appropriate values for the economic variables can be determined and utilized. The purpose is to ensure that revenues from the industry match agency costs for the agreed upon mitigation plan. This is especially critical since the mitigation credits for the Pennsuco wetland will not be adequate to offset the total amount of the anticipated wetlands impacts from the proposed mining.

FAR120. FWS noted that "the landscape in South Florida will change drastically as a result of the Everglades Restoration" and that this limited the Corps' ability to prepare a full mitigation plan for the entire fifty years originally envisioned. FAR2. As noted above, the initial assumed value for Pennsuco wetland acquisition and restoration costs was \$ 6,142 per acre. This figure is increased slightly each year, and is based on acquisition costs of \$ 3,071 per acre. See Am. Compl., Attachment 1. According to Plaintiffs, [*153] however, Pennsuco land prices were significantly higher than provided for by the permits and the ROD. "[For example,] Parcels in the Pennsuco owned by the Florida Rock mining company were valued at \$ 10,000 per acre as part of an October 2003 land swap." Further, the Corps' settlement of the Florida Rock takings litigation resulted in compensation of \$ 13,462 per acre. The Corps received comments after the EIS was issued urging the Corps to purchase as much land for mitigation as possible early -- before prices increased. AR956.

The costs used to derive the fee included the costs of melaleuca removal. It appears that the costs of removing melaleuca were underestimated in the Corps' adoption of the cost of \$ 6,142 per acre of mitigation, i.e., to acquire and restore an acre of Pennsuco wetlands. "Removal costs are really very low for the amount of work that needs to be done." FAR124. "It is our belief that the proposed costs [at that time already updated to \$ 6,142/acre, see AR126] attributed to management of the Pennsuco are extremely conservative and do not accurately reflect the actual effort necessary to manage Melaleuca successfully." AR547. n154 The Corps has claimed [*154] that "without the melaleuca removal required by the [Lake Belt] plan, and funded by the mitigation fees these open areas [of wetlands in the Lake Belt] would be overrun by vegetation and unavailable to the storks for forage." AR1144 at 15 (Corps' FAQs). n155 In light of the potential underestimating of these expenses, the Court has serious concerns regarding the adequacy of the fee with respect to the costs of acquiring wetlands for restoration.

n154 Exotic treatment costs were estimated to be \$ 50 per acre for prescribed burning in the Pennsuco. "Prescribed burning, in conjunction with chemical control, is much more effective than chemical treatment alone. We are proposing that annual burning take place for five years following chemical treatment. Restoration costs are based strictly on exotic control measures -- chemical treatment and prescribed burning. Hydrologic restoration has not been considered, although it may be a factor. At this time, there is no way to estimate its need or

cost." The annual maintenance costs for the Pennsuco for the first year after the beginning of a melaleuca removal program, ranged from \$ 494/acre (central area of Pennsuco), to \$ 938/acre (northern), to \$ 2270/acre (southern). These figures drop in each of the subsequent four years, and then in the fifth year revert to a lower cost a regular maintenance program (after the melaleuca seed source has been controlled). AR618 at 178. (Attachment to fax from EPA to Corps).

[*155]

n155 It is unclear why this particular mitigation, i.e., melaleuca removal, could not be accomplished without the mining plan. It is not enough to justify permitting the mining -- with its consequent total environmental damage to existing wood stork foraging areas -- in order to fund restoration of other areas for wood stork foraging. Although it is not the Court's role to second-guess the Corps' judgment, it certainly appears that a more environmentally correct result might have been obtained by not permitting the mining, and instead funding melaleuca removal on those wetlands already publicly owned.

b. Lakes/Shelves

The EIS discusses mitigation, in part, as replacing lost wetland values by constructing edges, i.e., "littoral shelves," around each of the mining pits. n156 It also had been argued that the lakes themselves were of some ecological value. However, the deep pits and their corresponding shelves, which will be constructed by the mining companies, have been the subject of much criticism.

n156 The shelves have been described variously as safety shelves (presumably because of the danger of the steep drop), artificial marshes/wetlands, and littoral shelves.

[*156]

The Florida Game and Fresh Water Fish Commission reported that fish production is low in the quarry pits. AR299. Natural lakes are absent from southern Florida, and only 3.2% of Florida's natural lakes are greater than 1,000 acres, with few lakes exceeding 30 feet in depth. FAR132. n157 At a meeting in February 1998, an interagency group agreed that the functional capacity of a 100 foot wide littoral shelf was .53 on a scale of 0 to 1.0, due to wildlife utilization, ground cover, buffer, hydrology, and water quality functions. FAR124. n158 Clearly, a balanced and healthy agency review would result in a record that included a variety of data, not all of which must support the agency's decision. Indeed, a record that tilted in only one direction would be suspect, nor does all of the data need to support the agency's decision. *Environmental Coalition of Broward v. Myers*, 831 F.2d 984 (11th Cir. 1987). However, in this case the data is all against any value in the deep pits and limited, if any, value in the shelves, so the Corps' decisions runs counter to the evidence.

n157 This specific document was not located in the AR, although pages from the document appear in Appendix D of the EIS, and the Court presumes that it was available to the Corps. AR614 at 793.

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n158 Although the Court only located this document, summarized notes of a meeting, in the FAR, the content of the document is presumed to have been available to the Corps, who was present at the meeting.

The Corps' conclusion that the remnant pits were of any benefit is not supported by the record, nor has it been demonstrated that lakes mitigate for any of the adverse effects discussed above -- indeed, they exacerbate the groundwater seepage problem and the Aquifer contamination issue. n159 Similarly, the shelves are of dubitable value; apparently recognizing this, the Corps has postponed enforcing any requirement that the shelves be constructed. In March 1995, the miners requested that mitigation requirements be deferred as to the construction of littoral shelves since it may be inef-

ficient to construct littoral zones if those areas were likely to be mined later. AR219. The ROD provides that "construction of [demonstration 100-foot wide littoral marsh] will commence after the 3-year review," while waiting for data from an existing marsh to determine what benefits these provide. AR1028 at [*158] 74. This represents an improper decision by the Corps to postpone the mitigation for the wetlands losses, and the agency's own acknowledgment of the insufficiency of the mitigation plan -- at least to the extent that it depended upon the shelves.

n159 "Contrary to providing comparable water quality enhancement benefits, borrow lakes are much less capable of providing many specific benefits, and in the case of groundwater protection may even act as a conduit for contamination to reach the aquifer." AR117 (Correspondence from EPA to Corps, dated June 15, 1993, regarding project in west Broward County, immediately to the north of Lake Belt area).

c. Pennsuco

The EIS revealed that there was not enough land in the Pennsuco wetlands for the fifty year mining plan, n160 and that the area may not be the best choice for compensatory mitigation; despite this significant deficiency in its mitigation strategy, the Corps proceeded with the mining plan until it was forced to reduce the period to ten years to satisfy [*159] objectors. Although the Corps stated, in February 2002, that there would be enough area in the Pennsuco to accommodate the first ten years of mining, AR990, n161 it appears that it will be insufficient to accommodate the mitigation needs of all of the mining activity allowed in these permits. A senior Corps staff member noted that the permitted acres actually will take sixteen years to mine, and that there will be insufficient acreage available for mitigation in the Pennsuco. AR978.

n160 "Approximately 23% of the functions and values of the wetlands impacted are mitigated through restoration/enhancement of degraded wetlands within the study area. Additional mitigation sites will need to be identified for the project to achieve complete mitigation." AR614 at 103.

n161 "The Corps has identified willing sellers in 12,000 acres of Pennsuco (more acreage than [sic] required for mitigation for the 10-year period)." FAR2 (Dec. 17, 2001).

The EIS candidly states that the mitigation discussion is incomplete, but [*160] that it will be completed "during the permit application review process and finalized as part of the permit decision after this EIS document is finalized." AR614 at 98. In July 2000, the Corps announced that its "current position is that the permits, if issued, will be conditioned for periodic reviews that would stop mining until additional compensatory mitigation sites are identified and added to the permits." AR637. The special conditions, however, do not specify such a result. AR1028 at 75.

As early as 1997, ENP and FWS argued that the Pennsuco might not be the best location for the Lake Belt's planned mitigation since that area may be needed for water storage or for a buffer as part of the Park's restoration. AR512. After the EIS was issued, the FWS noted that the long-term hydrological viability of the Pennsuco was unknown, due to the possible effects of decreases in average annual surface water levels which may result from the mining. AR671.

The record before the Court suggests that the Corps did not comply with NEPA in preparing the EIS, nor in issuing the permits. While the reduction in terms of the permits did retroactively render the EIS discussion of mitigation more adequate, [*161] it is nevertheless the case that the Corps should have rigorously evaluated, with public participation, the actual mitigation plan to be adopted with the permits. The location of the additional property to be mitigated, beyond the Pennsuco, is unclear from the EIS, or even the ROD -- as it appears that there may be insufficient land in the Pennsuco to accommodate even the 5,409 acres of mining to be conducted as a result of these "ten year" permits (13,522.5 acres would be needed). Having failed to identify, even generally, what other properties would be mitigated, the Corps violated NEPA by failing to provide the public with "sufficient information to . . . generate meaningful comment." 33 C.F.R. 325.3(a).

d. Transfer of property/Conservation easement

Another key aspect of the mitigation plan was that the mining companies were to sell their property within the Pennsuco to a governmental agency at appraised value, in order to protect it from further development. n162 AR614 at 98-99. However, only three of the companies (Florida Rock, Rinker and Tarmac) own any land in the Pennsuco. Shockingly, the planned transfer of the miners' Pennsuco lands to the [*162] public is not binding. The EIS states that the sale "will be negotiated with individual companies who agree in principle to sell at appraised value." AR614 at 99. n163 The Corps describes it as a "gentleman's agreement" that miners will sell Pennsuco lands at market value to SFWMD. AR956.

n162 Regulatory Guidance Letter ("RGL"), issued by Corps on October 31, 2001: "areas included in a mitigation project should be permanently protected with appropriate real estate instruments." RGL No. 01-1, 4(a)(1) (Oct. 31, 2001), *reprinted in* William L. Want, *Law of Wetlands Regulation* (2005). This RGL was issued after a report by the National Research Council/National Academy of Sciences issued in June 2001 that criticized agency mitigation plans as being insufficient. William L. Want, *Law of Wetlands Regulation* § 6:43.1, at 6-42 (2005).

n163 The ROD acknowledges that there is "no written commitment" -- apparently because those companies do not yet have a commitment from the Corps that mining will be permitted for the desired fifty years. AR1028 at 70.

[*163]

The mitigation plan also envisioned conservation easements briefly in the EIS. AR614 at 99. The record reveals a fair amount of unsuccessful negotiation between the agency and the miners' representatives on these issues, which ultimately resulted in the lack of any binding requirement on the permittees. Thus, although the adoption of the statutory fee per ton included an assumption that the conservation easements and agreements to sell would be given by the mining companies, AR701, the Corps' decision on the easements was "[kicked] down the road to the three year review period when we may have a better feel for land-use footprint" AR707, AR759. FWS argued that the Corps should force the mining companies to commit to sell their Pennsuco lands at appraised values, particularly because no lands had been acquired for mitigation in Pennsuco even though \$ 24 million had been collected from October 1, 1999, through December 31, 2000. AR824.

Despite earlier having proclaimed their intention to convey mined property to the public, n164 and their arguments that mining and its leftover lakes would serve the public interest by stopping further westward expansion of urban development, the mining [*164] companies slowly moved away from any commitments to convey their property rights. In November 1996, a Corps staff member reported that the miners wanted to keep their development rights in case the Urban Development Boundary for Miami-Dade County shifted to the west to include some of the Lake Belt. AR341. After the EIS was issued, the mining companies negotiated a statement that mined lands were to transfer to public ownership "where appropriate," AR901, and noted that conservation easements were not required by any statute, but that the miners were "doing this voluntarily," and that they were willing to work with the Corps as long as they were fairly compensated. AR909. n165

We cannot agree to an open ended conveyance, irrespective of ownership or other legal restrictions and therefore cannot agree to obtain releases or subordination agreements as a condition. In some cases, miners may just be leasing the mineral rights and may never acquire full title to create such an easement nor do we know if an easement would be OK with lenders or others. We also have a problem with extending the easement to upland areas in order to protect the littoral areas from indirect impacts. That [*165] would make the easement potentially limitless' and be impossible to implement as well as reaching far beyond the Corps CWA jurisdiction.

AR706. The Corps' failure to adopt a sufficiently certain mitigation plan as to transfer of the mined property, particularly since the public was advised that the transfer of mined lands to the public was a component of the mining plan, violates the Corps' duties under NEPA.

n164 In 1995, a mining representative stated that "the Lake Belt Plan envisions that essentially the entire area will be owned by the public. The mining companies have indicated that they will donate a substantial portion of their land when mining is complete." AR222. Previously, the mining industry had claimed that "the miners in the vicinity of the Northwest Wellfield typically sign a covenant agreeing to no future development around the deep lake -- shallow lake area." AR19 at 10-11. As late as September 2000, the miners were taking credit for the "additional consideration from the Coalition such as the agreement to sell its land in the Pennsuco strip at appraised value." AR708.

[*166]

n165 Some members of the mining coalition made it clear that they would not "give up their property rights." AR 708 at 1-2.

In summary, the Corps' permits authorize the mining industry to eliminate thousands of acres of wetlands. While the miners repeatedly describe the area as "degraded" wetlands, n166 it is nevertheless the case that these wetlands, sitting directly above the Biscayne Aquifer, do serve a purpose and that purpose must be mitigated for if the wetlands are going to be destroyed. The Corps' mitigation plan identifies few specifics as to the serious adverse effects identified above, e.g., Aquifer contamination, groundwater seepage, destruction of wood stork habitat, increased urbanization. The major aspect of the mitigation plan is the payment of a fee per ton, and the use of those funds to acquire other wetlands for restoration. There is no discussion of a mitigation plan for treatment of the Aquifer if it becomes contaminated, nor is there a plan for compensating for groundwater seepage impacts. The derivation of the mitigation ratio is confusing, at best, and suggests that even [*167] when the Corps does implement a specific mitigation plan that it will be insufficient as to this mining. For all of these reasons, the Court must conclude that the Corps' permitting decision -- particularly the EIS -- does not satisfy NEPA, and the Corps is directed, on remand, to examine the mitigation needs in greater detail.

n166 The mining industry had argued that no compensatory mitigation should be required since they were minimizing any adverse effects by using only degraded wetlands for mining. AR222. This position clearly was unsupported.

3. Alternatives to the proposed action

The CEQ regulations describe the analysis of alternatives as "the heart of" the EIS. 40 C.F.R. 1502.14. The result of this analysis should be a set of options which reveal a clear basis for choosing among alternatives. Skinner at 1541. "This discussion-of-alternatives requirement is intended to provide evidence that those charged with making the decision have actually considered other methods [*168] of attaining the desired goal, and to permit those removed from the decisionmaking process to evaluate and balance the factors on their own." *Sierra Club v. Morton*, 510 F. 2d 813, 825 (5th Cir. 1975); *Druid Hills Civic Ass'n v. Federal Highway Admin.*, 772 F.2d 700, 712 (11th Cir. 1985).

"NEPA imposes procedural requirements before decisions are made in order to ensure that those decisions take environmental consequences into account." *Wilderness Watch v. Mainella*, 375 F.3d 1085, 1096 (11th Cir. 2004) (reversing for NEPA violations in agency decision to allow vehicle use through wilderness areas). The EIS analysis of alternatives must "rigorously explore and objectively evaluate all reasonable alternatives, and for alternatives which were eliminated from detailed study, briefly discuss the reasons for their having been eliminated." 40 C.F.R. 1502.14(a). Before determining what alternatives to study, an agency first must clearly define the project's purpose.

a. Defining the purpose

The EIS at issue contains no definitive statement of the project's purpose and only references the creation of the Lake [*169] Belt Committee as the "need" for the project. AR614 at 11-12. In the Public Notice issued with the EIS in June 2000 the Corps identifies the proposed work as the: "Placement of fill related to excavation activities for the purpose of limestone quarrying." AR623A. The Corps' responses to critics, attached to the EIS as Appendix H, described the purpose as "to provide a limestone product from the Lakebelt area." n167 AR614 at 909. n168 The Federal Defendants assert that "the purpose of the requested permits was to allow the applicants to exercise their mining rights."

Cross-Motion for Summary Judgment, Docket Entry # 32, at 33. As NEPA requires public disclosure of critical information, the Court will rely on the more general statement of purpose contained in the more readily accessible Public Notice. This also is consistent with NEPA's requirement that the general goal of the project, rather than the particular applicant's goal, be considered. *Van Abbema v. Fornell*, 807 F.2d 633 (7th Cir. 1986) (proper to analyze general goal, rather than particular applicant's goal, "only marginally relevant" if at all, that applicant doesn't own an alternative site).

n167 "A conservation biology alternative [no additional mining, mandated restoration, etc.] will not achieve the landowners' purpose to provide a limestone product from the Lakebelt area." AR614 at 909.
[*170]

n168 Additional statements of purpose are found in the ROD, see CWA analysis, below.

b. Analysis of "no action" alternative is required

Consideration of the "no action" alternative is mandatory "to facilitate reader comparison of the beneficial and adverse impacts of other alternatives to the applicant doing nothing." 40 C.F.R. 6.203(b)(1), (c), 40 C.F.R. 1502.14(d). This "provides a benchmark, enabling decisionmakers to compare the magnitude of environmental effects of the action alternatives." *Forty Most Asked Questions Concerning CEQ's NEPA Regulations*, 46 Fed. Reg. 18,026, 18,031 (March 23, 1981). n169

n169 Note that the 40 questions document is not owed the substantial deference as would be to agency regs, submitted to notice and comment.

The "no action" alternative was not rigorously explored and objectively evaluated, as required by [*171] 40 C.F.R. 1502.14. Instead, the EIS merely explains why that alternative is not being examined in any detail. AR614 at 71-72. The Corps concluded that if it took "no action" and instead maintained a permit-by-permit review of proposed mining in the area there "would be no development of a comprehensive landuse [sic] master plan" for the Lake Belt area, AR614 at 71. There is no basis for this conclusion, however, since the development of a master plan is not the Corps' responsibility, but rather rests with local, or perhaps state, government. The Federal Defendants admit this in their brief. "The decision to allow mining in the Lakebelt region is a land use decision made by the State of Florida and local governments. It is not the role of the Corps to question that determination, but rather to determine whether public interest in mining as determined by those entities warrants the impact to waters of the United States." *Federal Defendants' Cross-Motion for Summary Judgment*, at 363.

c. Corps' analysis of three alternatives

NEPA requires an analysis of alternatives and the presentation of that analysis in such a manner that a decision-maker can choose [*172] wisely among the options presented to her. The Corps must "rigorously explore and objectively evaluate all reasonable alternatives [but then just] briefly discuss [those alternatives eliminated from detailed study]." 40 C.F.R. 1502.14(a). The EIS contains a discussion of only four alternatives:

- 1) no action (such that the Corps will continue evaluating permits on a case-by-case basis),
- 2) no action and revocation of existing permits,
- 3) curtail future mining, and
- 4) comprehensive mining plan.

The first three of these were "briefly discuss[ed]" and then eliminated. No other alternatives were identified in the EIS, so presumably no others were studied. 40 C.F.R. 1502.14(a). The ROD discusses the same alternatives. AR1028 at 36-40. n170

n170 The Industry Defendants rely on the fact that the Issue Team studied twelve alternatives, and the Team's report is included as Appendix F to the EIS; however, NEPA requires that the alternatives analysis be discussed in the EIS. In any event, the claim that the Team studied twelve alternatives is slightly misleading. The Team approached the study of the Lake Belt area by section: north, middle, and south, with no more than five alternatives being studied for any one section. For example, two were studied on the northern section, five for the middle section, and four for the southern. AR614 at 843. Also, the twelve alternatives were only a very preliminary stage -- generated as a result of asking members of the Issue Team first to mark on a map their decision as to where mining, water management, and environmental lands should be located, and then to do the same again after a copy of the initial map including everyone's first round of input, was distributed. AR614 at 842.

[*173]

i. The "no action" alternative(s)

The Corps concluded that taking "no action" and continuing to review permits on an individual basis would not be wise because of the "strong consensus . . . that the current wetland mitigation requirements do not adequately compensate for the resulting wetland impacts." AR614 at 71. This statement defies logic. The continuation of case-by-case review does not imply that wetland mitigation requirements cannot be improved.

The Court also determined that taking no action and revoking the mining permits would cause "economic hardship" on the mining industry "as well as increased cost of construction goods and services to the people of Florida," AR614 at 71, and, as such, was "unreasonably expensive to the applicant" and therefore not practicable. n171 This statement is similarly senseless, and fails to take into account the principle stated within the same paragraph of the EIS, i.e., that "the determination of what constitutes an unreasonable expense should generally consider whether the projected cost is substantially greater than the costs normally associated with the particular type of project or would force an applicant to accept a level of [*174] business risk that would be unreasonable." AR614 at 71. There is no support in the record for a determination that "revoking" the current permits (many of which were expiring) and denying any future permits would be "unreasonably expensive to the applicant" -- for the simple fact that there is no evidence at all as to the mining companies' financial situations n172, nor whether, e.g., they own property in other locations that could be mined while the Lake Belt plan is subjected to further study, or whether they anticipated denial of permits as part of their business plan. n173 The "costs normally associated with" limestone mining are not specified in the record and, consequently, there is no basis for the Corps' conclusion that the costs of stopping mining would be "substantially greater" than the usual costs of limestone mining. n174

n171 Citing the Preamble to the 404(b)(1) Guidelines, 45 Fed. Reg. 85336 (1980), *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997), the Corps concluded that because of "the legal issues arising from the revoking of existing permits and the economic hardships imposed on the mining industry this scenario will not be carried forward for further evaluation." AR614 at 71.

[*175]

n172 The brief report entitled "The Economic Significance of Lake Belt Limestone Mining," included as an Appendix to the EIS, AR614 at 871, is of no assistance. Not only does it focus on external economic factors, e.g., the "earnings of cement manufacture employees" or the "output of cement," rather than actual costs or profits of the specific mining companies, but also its data source is questionable. The "methodology employed was to distributed a written questionnaire to Lake Belt mining interests." In light of the purpose behind the study, i.e., to gain approval of permits for those same mining interests, this report has limited, if any, value. AR614.

n173 This is particularly true in light of the prior success of at least one of the permit applicant's regulatory takings challenges. While this Court disagrees with the takings determination in the Florida Rock cases, it is

nevertheless the case that the record reveals a successful challenge and no evidence that compensation would not be awarded as to any current permit denials -- if the property owner could prove their case, of course.

n174 It is reasonable to assume that the costs of limestone mining in any area of environmental significance are high, and that the risks of denied permits are taken into account in the mining companies' business plans.

[*176]

The ROD contains similarly illogical statements. For example, the Corps notes that the alternative to facing the "costly process" of further takings challenges brought by the mining companies, is "public acquisition of the lands." AR1028 at 37. While that statement is true, the Corps then makes a giant leap to conclude that public acquisition of the unmined lands would require all of the following: purchase of 40 square miles of land owned by the mining industry, removal of the roads, railways, processing plants, and other infrastructure, and removal of the drainage works -- which would require purchase of the remaining 31 square miles of privately owned and 16.5 square miles of publicly owned lands. AR1028 at 37. Having determined that the "no action" alternative would lead either to future takings challenge, or to purchase of the entire universe of the Lake Belt, the Corps handily rejected the "no action" alternative. The Corps did not even address the benefits of denying future permits for mining in the area. Having jumped from one extreme (total restoration at great financial cost), to the other (full mining and continued degradation), the Court failed to consider a middle ground, [*177] e.g., simply stopping the mining first, and then proceeding step by step to restore the area when funding is available. n175 Because of these (illogical) determinations, both of the "no action" alternatives quickly were dismissed without the Corps conducting the evaluation required by NEPA. 40 C.F.R. 6.203(b)(1), (c), 40 C.F.R. 1502.14(d).

n175 The adage that when you realize you're in a whole, the first thing to do is stop digging, seems apt here.

ii. "curtail future mining"

According to the Corps, mining the 5,000 acres in Miami-Dade subject to existing permits (i.e., without any new acreage being approved) would last only fifteen years, at which time rock would have to be brought in from elsewhere. Since that imported rock now only constitutes 1% of the State's annual consumption of rock, "it would take time to increase outside sources of rock imports to equal future demands. Florida must, therefore, continue to supply the majority of the State's crushed [*178] rock needs for years to come." AR614 at 71-72. The fact that "Florida" must continue to supply its own crushed rock needs does not translate to a requirement that mining must be permitted to continue in the Lake Belt. The Federal Defendants acknowledge that the Lake Belt area supplies "over half" the crushed stone for the entire state, Reply brief, Docket Entry # 42, at 7, so apparently as much as 40% or more of the state's rock needs are supplied by other locations in Florida (1% foreign origin, "over half" from Lake Belt). The use of "therefore" does not render an otherwise unsupported conclusory statement meaningful. It is impossible for the Corps to be protected by the shield of deferential review when its "decision is so implausible that it cannot be the result of differing viewpoints or the result of agency expertise." *Sierra Club* at 1216. The "curtail future mining" alternative was eliminated not based upon facts at the time of the Corps' analysis, but rather because it might be infeasible at some point toward the end of the next fifteen years. This reveals that the permits as issued, which allow mining in areas not previously permitted, are not the environmentally preferable [*179] alternative, for the "curtail future mining" alternative would have permitted approximately the same amount of acres to be mined, i.e., a similar benefit to the mining companies, but within previously approved areas and, presumably, with less adverse effects and for a shorter period time. Thus, the Corps' decision was not in compliance with NEPA. n176

n176 Even in light of the mandated deferential standard of review, the Court cannot condone the Corps' short analysis as being sufficient to meet the rigorous demands of NEPA. Mere "snippets do not constitute real analysis" *Natural Resources Defense Council, Inc. v. Hodel* 865 F.2d 288, 299 (D.C. Cir. 1988) (simply announcing that protected species may be exposed to risks of oil spills was insufficient analysis under NEPA). "These perfunctory references do not constitute analysis useful to a decisionmaker in deciding whether, or how, to alter the program to lessen cumulative environmental impacts." *Id.* at 299.

iii. Comprehensive [*180] mining plan n177

n177 Kendall Properties mining company asserts there was no such thing as a "miners' recommended plan," and that they always fully intended to mine all of what they own and would not have agreed to some compromised "plan." "It is, and always has been, our intention to mine to the western boundary of our property. The Issue Team disagreement' came about because the issues of seepage, and possible mitigation for induced seepage, if any, could not be sufficiently addressed by the Team." AR605 at 216.

Both DERM and SFWMD complained to the Corps in 1999 that the comprehensive mining plan alternative in the draft EIS did not accurately represent the work of the Lake Belt Issue Advisory Team and the result of its study of several alternatives. AR606. Specifically, the timing of mining, particularly near the wellfield, in the Team's plan differed from that described in the comprehensive mining plan, and the Team had not reached a consensus as to mining in the area south of Tamiami Trail, i.e., closest [*181] to ENP. n178 The Corps proceeded with the alternatives described above -- the analysis of which, in the EIS and ROD, was exceedingly brief. The Corps' preparation of the NEPA documents, including its early preparation of permit templates even before the EIS was published, reflected the Corps' intention that the preferable alternative was and would be the "comprehensive mining plan."

n178 Beyond the mining proposed in the comprehensive plan, one of the mining representatives suggested that the Corps analyze yet another option. "To provide bookends' the Corps may want to include [another] alternative of allowing 20,000 or 30,000 acres of additional mining instead of the 8,400 [new] acres evaluated in the Comprehensive Mining Plan." AR610. The Corps rejected that idea.

d. The "bridging permits" mask the Corps' intention to permit mining for fifty years

As noted at the beginning of this opinion, Plaintiffs allege that these really are fifty year permits, perhaps clothed as 10 year (or 14 year or 16 [*182] year) permits, but nevertheless designed to lead to full mining of the Lake Belt area. The Court agrees, and finds that this surreptitious approach to permitting does harm to the principles of NEPA, and the APA, as well. Other courts have noted how environmental analyses can become distorted when the initial phases of a project already have been approved. See, e.g., *Davis v. Mineta*, 302 F.3d 1104 (10th Cir. 2002) (enjoining first phase of a project because, although the harm would arise from later phases, of risk that the NEPA alternatives analysis would be skewed toward completion of the project if any construction was allowed before a complete environmental analysis was done). As the now Justice Breyer observed while on the Court of Appeals for the First Circuit:

The harm at stake in a NEPA violation is a harm to the environment, not merely to a legalistic "procedure[.]" The way that harm arises may well have to do with the psychology of decisionmakers, and perhaps a more deeply rooted human psychological instinct not to tear down projects once they are built. But the risk implied by a violation of NEPA is that real environmental harm will occur through [*183] inadequate foresight and deliberation. The difficulty of stopping a bureaucratic steam roller, once started, still seems to us . . . a perfectly proper factor for a district court to take into account in assessing that risk[.]

Sierra Club v. Marsh, 872 F.2d 497, 503 (1st Cir. 1989). *Florida Wildlife Federation v. United States Army Corps of Eng'rs*, 404 F. Supp. 2d 1352, 1362 (S.D. Fla. 2005) ("It cannot be denied that allowing substantial development of a project creates momentum that typically cannot be reversed."). It would be error for this Court to review this case without addressing the question of the fifty year plan. n179

n179 The Industry Defendants assert that it is not proper to litigate questions related to the longer mining plans, since those "[50 year] permits have not been proposed[.]" Docket Entry # 44, p. 21 n15. This seems a bit disingenuous since, in November 2001, a mining representative noted that "several companies are concerned that the issuance of the 10 year permits may prejudice existing permits to mine beyond the 10 year footprints. . .

. [and] proposed savings' language to be inserted at the end of the first special condition discussing the relationship between the 10 year permits and the 50 year Lakebelt program." AR899.

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The Corps itself has declared that the EIS and the originally envisioned permits were designed to facilitate the fifty year planning window for mining activities, even though the permits presently were being issued for a ten year period." AR682. n180 The Corps acknowledged that it rushed the publication of the EIS in June 2000, but that it did so in order to disclose information at the time that permit extension decisions were being made. In June 2001, the Corps noted that the key to the renewal of the ten year permits will be the monitoring plan used in year nine. AR836. The inclusion of the three year review point in these "bridging permits" apparently was designed to give the Corps a means by which to respond to the extensive objections that had been raised regarding the initial mitigation plans, and to determine what Miami-Dade County would do regarding potential contamination of its primary source of drinking water by mining activities. For example, the EPA had raised "serious wetland and drinking water . . ." concerns, but supported the concept of a "bridging permit" to deal with the problem of the expiring permits. AR705A.

n180 "While the Public Notice described 50-year permits . . . , currently the parties are exploring what is being called a bridging permit' for 10 years but with a review at 3 years." AR718.

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If these permits had been issued as fifty year permits, the Court would have invalidated the permits and directed the Corps to deny the permits (rather than simply remanding the case for further study). Such a conclusion would have been required under NEPA (and the CWA) because of the significant adverse effects and the Corps' insufficient mitigation and other analyses.

4. Relationship between short-term uses of environment and maintenance and enhancement of long-term productivity

The Court now turns to an evaluation of the adequacy of the Corps' balancing under NEPA of the applicant's need to use the environment against the enhancement of the environment's long-term productivity. Factors relevant to the Corps' consideration included conservation, economics, aesthetics, general environmental concerns, wetlands, historic and cultural resources, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership. AR1028 at 76-83. The Corps' weighing of the relevant factors need not result in [*186] a specific dollar and cents comparison n181, particularly in a case such as the present which involves extensive environmental destruction in order to obtain natural resource materials for sale by private corporations.

The decisionmaker's task nevertheless remains the same. It is not to total up dollars and cents in a sort of profit-loss ledger, but rather to consider the previously unconsidered by giving weight and consideration to the ecological costs to future generations in deciding whether present economic benefits indicate that the depletion of irreplaceable natural resources should proceed in the manner suggested, or at all.

Sierra Club v. Morton, 510 F. 2d 813, 827 (5th Cir. 1975). The scope of the Corps' evaluation of each of the relevant factors must be similar. "The record shows that the Corps' analysis, while narrowing the review of the proposed project's impacts to the 535-107 acre project, improperly extended the scope of both its benefits and alternatives analysis to the entire Research Park Project." Florida Wildlife Federation v. U. S. Army Corps of Engineers, 401 F. Supp. 2d 1298, 1331 (S.D. Fla. 2005) (failure to consider [*187] impacts of planned road extension related to development of Palm Beach County Biotechnology Research Park was arbitrary and capricious when record revealed reasonably foreseeable indirect and cumulative effects of the proposed project, and scope of alternatives and benefits analysis differed from scope of impact analysis).

n181 "NEPA does not mandate the inclusion of a cost-benefit analysis in an environmental impact statement." Mooreforce, Inc. v. U. S. Dept. of Transp., 243 F. Supp. 2d 425, 437 (M.D. N.C. 2003) (highway project

cost-effectiveness analysis properly considered cost of induced travel and costs of intersections -- not a violation of NEPA, brought by owners of land that would be impacted by construction of road).

The short term uses in this case are the mining, which results in the permanent removal of the wetlands. n182 "The most significant impact of Lake Belt mining is the production of goods, primarily building materials, for a growing Florida," AR1028 at 77 n183; thus, the long-term [*188] productivity is primarily as to an economic factor, e.g., production of limestone which supports economic growth, although the fees collected will be used to acquire property and fund restoration of the greater Everglades for the public benefit. The Corps' analysis focused primarily on the economic benefits of rockmining, using rapid development and growth in Florida to justify the expansion of mining, for profit, in the Lake Belt wetlands. "The adverse effect of urban sprawl in the local area and region should be investigated, for if rockmining is credited for supporting growth, it follows that rockmining should also be criticized for the adverse effects of growth, including the loss of open space, 108 agricultural lands, and habitat." AR631/FAR85. It must be remembered that, at least for the purposes of the Corps' NEPA analysis, environmental impacts are more important than economic ones, economic and social impacts have lesser importance than purely environmental or ecological impacts. At least one court has reversed a permit denial based upon the Corps' improper focus on the potential harm to the economy of a neighboring area if a mall was to be constructed. *Mall Properties, Inc. v. Marsh*, 672 F. Supp. 561 (D. Mass. 1987), [*189] appeal dismissed at 841 F.2d 440 (1st Cir. 1988) (Corps should have focused its consideration on physical impacts). n184 The court's decision in *Mall Properties* seems to suggest that the Corps' economic inquiry should be confined to the effects related to alterations of the physical environment. "These effects would typically be with respect to navigation or fisheries." *Id.* An overemphasis on economic factors, particularly when they have not been tested rigorously, can derail the Corps' analysis. *South Louisiana Environmental Council, Inc. v. Sand*, 629 F.2d 1005 (5th Cir. 1980); see also *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437 (4th Cir. 1996) (inflated estimate of recreation benefits versus adverse environmental effects).

n182 The ROD states that "the public will enjoy the benefits of the construction material obtained at the expense of approximately 8 square miles of poor quality wetland, but in addition would benefit from the acquisition and restoration of 14.6 square miles of privately owned lands." AR1028 at 77.
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n183 "Miners have financial based expectations to continue mining in the Lake Belt area." AR1028 at 83.

n184 After that decision, the Corps issued a Regulatory Guidance Letter ("RGL"), 88-11 (effective August 22, 1988, expired December 31, 1990), *reprinted in* William L. Want, *Law of Wetlands Regulation* (2005), clarifying that the Corps staff "should give less weight to impacts that are, at best, weakly related to the purpose of our permit action and statutory authority, and not let such impacts be the sole or most important basis for a permit denial." William L. Want, *Law of Wetlands Regulation* § 6:32, at 6-32 (2005).

The socio-economic analysis in this EIS is scant, and the single report on this factor appended to the EIS relies on data derived only from the mining industry (apparently from the specific permit applicants themselves). n185 Misleading information about economic impacts can defeat the "hard look" function of an EIS. *South Louisiana Environmental Council v. Sand*, 629 F.2d 1005 (5th Cir. 1980); see also *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437 (4th Cir. 1996) [*191] (inflated estimate of recreation benefits weighed against adverse environmental effects). For economic impact, the Corps' scope of analysis included the "county and southeast Florida region," AR1028 at 8. The Corps' asserted that the need for the project was "demonstrated by the strong support of the state government and the local community for the jobs that will be created and the materials that will be made available for infrastructure improvements." AR1028 at 83. While the role of a state government and its support for a project may be somewhat relevant, it is not one of the factors specifically identified by Congress. *Hoosier Environmental Council, Inc. v. U. S. Army Corps of Engineers*, 105 F. Supp. 2d 953 (S.D. Ind. 2000) (Corps may give deference to decisions of a state agency regarding the purpose of a project sponsored by that agency); *Friends of the Earth, Inc. v. U. S. Army Corps of Engineers*, 109 F. Supp. 2d 30 (D.D.C. 2000) (state court's analysis irrelevant). One of the mining consultants argued that the Conference Report from the 1996 WRDA, 104th Congress, 2nd Session, Report 104-843 (September 25, 1996), directed the Corps to approve [*192] mining in the Lake Belt. AR474 at 5. "The Legislature of the State of Florida has recognized

the importance of the Lake Belt Area of Dade County for the provision of a long-term domestic supply of aggregates, cement, and road base material. The Secretary is directed to take into consideration the Lake Belt and its objectives, as defined by the State legislature, during development of the Comprehensive Plan [for Everglades Restoration]." AR605 at 195. This quote clearly refers to the overall CERP, and not particularly to the permitting decision before the Corps (and the Court).

n185 The methodology employed was to distribute a written questionnaire to Lake Belt mining interests that constitute approximately 90% of mining and related activities within the Lake Belt." AR614 at 871.

While a permit applicant is permitted to pay for studies to provide information for an EIS, there are some restrictions on their role. See Regulatory Guidance Letter No. 87-5 (May 28, 1987) "Environmental Impact Statement (EIS) [*193] Costs that Can Be Paid by the Applicant, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997). Whenever possible, the Corps should seek independent verification of an applicant's information.

Where the major federal action under consideration, once authorized, cannot be modified or changed, it may be essential to obtain such information as is available, speculative or not, for whatever it may be worth in deciding whether to make the crystallized commitment. . . . But where a multistage project can be modified or changed in the future to minimize or eliminate environmental hazards disclosed as the result of information that will not become available until the future, and the Government reserves the power to make such a modification or change after the information is available and incorporated in a further EIS, it cannot be said that deferment violates the rule of reason.' Indeed, in considering a project of such flexibility, it might be both unwise and unfair not to postpone the decision regarding the next stage until more accurate data is at hand.

Suffolk County v. Secretary of the Interior, 562 F.2d 1368, 1378 (2d Cir. 1977). "Courts [*194] allow the use of information by the private applicant, but require that the Corps exercise overall responsibility, and where the information is credibly challenged as inaccurate, impose a duty to investigate independently. Also, regulations of the Council on Environmental Quality express the intent of avoiding the use of a contractor with a conflict of interest." William L. Want, *Law of Wetlands Regulation* § 6:60, at 6-54 (2005), (*Van Abbema v. Fornell*, 807 F.2d 633, 642 (7th Cir. 1986); *Sierra Club v. Sigler*, 695 F.2d 957 (5th Cir. 1983), *Sierra Club v. Marsh*, 701 F. Supp. 886, 912 (D. Me. 1988).

As to this weighing exercise, the pressure from the permit applicants, including the specter of the takings litigation, n186 was damaging. Moreover, the reliance by the Corps upon applicant-supplied reports (e.g., Biological Assessment, Analysis of Practicable Alternatives, etc.) must be subjected to special scrutiny. n187 Paul Larsen's December 1999 report, Appendix I to the EIS, is cited extensively, *infra*, regarding its analysis of practicable alternatives. n188 Indeed, the Corps based its entire CWA alternatives analysis on that [*195] report.

n186 "We also recognize the Corps [sic] concerns about becoming involved in lawsuits regarding inverse condemnation or takings and meeting the September 2000 deadline established in the state legislation for the issuance of at least one permit under the mitigation fee plan." AR712 (correspondence from the Office of the Secretary of the Department of the Interior to the Corps' District Commander).

n187 In February 1996, Larsen was accused of providing "very biased" information. AR270. In November 1997, NPS staff noted that they would like to have someone impartial review Paul Larsen's fiscal analysis. AR529.

n188 Paul Larsen also played a key role in the Florida Rock takings litigation. Then Chief Judge Alex Kozinski of the United States Claims Court stated: "Defendant argues that the time spent by Mr. Larsen (1000 hours [at a total fee of \$ 84,876.45] was excessive. The court disagrees. Mr. Larsen contributed significantly to plaintiff's development of its case by presenting various visual aids describing the property and its surroundings. It was quite clear that plaintiff's counsel relied heavily on Mr. Larsen and that Mr. Larsen's participation at trial was essential to plaintiff's presentation. The court cannot disagree with counsel's decision to rely on Mr. Larsen

in this manner and, in light of that participation (much of it observed by the court), the claimed fee does not appear excessive." Fla. Rock Industries, Inc. v. United States, 9 Cl. Ct. 285 (1985) (reducing Florida Rock's fee demand by 15% and denying requested enhancement, but approving 1000 hours of Larsen's time). The Court reduced lead counsel's hours to a total of 1,098.8 hours, and second chair counsel's hours were reduced to a total of 1,199.4 hours, in comparison to Larsen's 1000 hours.

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The industry, or at least these mining companies, probably will suffer significant losses in the event that these permits are revoked, nevertheless, these losses cannot be justification for the possible, even probable, deleterious environmental effects caused by this mining. n189 "We will engage in a "narrowly focused" review of the economic assumptions underlying a project to determine whether the economic assumptions "were so distorted as to impair fair consideration" of the project's adverse environmental effects." Mooreforce, Inc. v. U. S. Dept. of Transp., 243 F. Supp. 2d 425, 437 (M.D. N.C. 2003) quoting Hughes River Watershed Conservancy v. Glickman, 81 F.3d 437, 446 (4th Cir. 1996), quoting South Louisiana Environmental Council v. Sand, 629 F.2d 1005, 1011 (5th Cir. 1980).

n189 The EIS contains a discussion of land use restrictions, AR614 at 58, see also AR614, Appendix E. The industry maintains that its purchase and use/development of the Lake Belt area has prevented further urban expansion of Miami-Dade County. "If mining interests had not purchased most of this land in the 1950's and 1960's . . . present land use in the Lake Belt Area would probably look like Broward County immediately to the north where the Everglades has been transformed into drained urban subdivisions," AR257 at 5 (Paul Larsen, January 16, 1996, correspondence to Corps); "If the Lake Belt Plan is not implemented the most likely scenario is that the resulting uncertainty would lead to the urbanization of the Lake Belt Area just like Broward County immediately to the north," AR610 at 11; "But for the fact that the mining industry purchased huge tracts of land as mining reserves in the Lake Belt area more than 25 years ago, residential and industrial development in Dade County would probably look similar to Broward County and there would be vastly fewer options and flexibility in the Lake Belt than is now the case." AR474 (Paul Larsen, May 23, 1997). These arguments ring hollow, however, as there is no indication that the area would succumb to sprawling development simply because rock mining was prohibited, nor is there any record evidence that Miami-Dade County desires to change the zoning of the Lake Belt area to permit urban development. Indeed, quite the opposite probably would occur -- the mining industry already has telegraphed its willingness to pursue takings litigation in the event that mining permits are denied, if such litigation were to be successful (and there is sufficient reason to doubt that it would), it may lead to the forced purchase of the property by the government, which then would be able to restrict development of the Lake Belt and perhaps restore the wetlands. Indeed, it is by no means a settled question that rock quarries and potentially contaminated drinking water are preferable to the "drained urban subdivisions" in western Broward, for at least the subdivisions provide housing for the burgeoning population.

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The Court previously described the takings litigation involving one of the mining companies, which was occurring while these permit applications were being reviewed. The record suggests that the consideration of the Florida Rock case did influence the Corps' weighing, as acknowledged by the Corps, AR1028 at 37, n190 and the Court has determined that this influence resulted in a failure to consider important aspects of the problem and tempted the Corps to rely on factors other than those that Congress intended the agency to consider. Sierra Club at 1216. The Court has studied the Florida Rock line of cases, and finds that they rest on a thin reed. Unfortunately, that thin reed created a costly specter of expensive land acquisition or takings litigation which may have spurred on the destruction of hundreds of acres of wetlands unnecessarily. The Federal Circuit itself noted that the location of the Florida Rock property at issue in the takings case lent some plausibility to the Government's suggestion that willing buyers existed for the property despite the regulations, and that the company had not demonstrated a taking of all economic uses of its property. It should not [*198] be presumed that the mining companies would succeed in any future takings challenges, particularly as to any property acquired after passage of the CWA. n191 More pertinently, even the appellate panel in the Florida Rock decision recognized that South Florida's history of real estate speculation and rapidly expanding population-driven development might indicate a value in the acres that could not, at the time, be mined. "South Florida has long enjoyed renown as not only a place where the gullible are fleeced, but also one where far-seeing investors realize fortunes." Florida Rock v. United States, 791 F.2d at 902 (1986). n192

n190 Note also that the first appellate decision in the Florida Rock litigation, in 1986, was being circulated within the Corps immediately after it was issued. AR9, AR10.

n191 Indeed, the Federal Circuit has distanced itself from the 1986 ruling in Florida Rock, noting that "any broad rule that may be drawn from these cases simply does not survive more recent Supreme Court precedent that indicates that defining the property interest taken in terms of the very regulation being challenged is circular." *Sartori v. United States*, 67 Fed. Cl. 263, 273 (2005), citing *Tahoe-Sierra Preservation Council, Inc. v. Tahoe Regional Planning Agency*, 535 U.S. 302, 331 (2002). The Federal Circuit observed that the Florida Rock panel's "focusing on the three-year time frame [i.e., the 98 acres sought to be mined originally] may have rendered less speculative the nature of the alleged injury." 67 Fed. Cl. at 274.

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n192 Despite the Claims Court's determination to find a nearly total taking as to Florida Rock's property (in defiance to the appellate court's direction to consider other bases for value that may have existed) that court did not find a taking as to a 1,247 acre parcel adjacent to the lands at issue in the Florida Rock litigation and for which permits were being sought during the same time period. *City Nat'l Bank of Miami v. United States*, 33 Cl. Ct. 224 (1995). The owner of those lands, Lloyd Moriber, proposed to mine 655 acres of his property, which had been acquired in 1972. Although he was informed by the Corps in 1976 that a permit would be required for his ongoing mining, Moriber didn't pursue an appeal, but instead waited on the outcome of the Florida Rock litigation and then at some time in 1990 or 1991 "contacted counsel for the Government to discuss the possibility of settlement." *City National Bank of Miami v. United States*, 30 Cl. Ct. 715, 717 n3 (1994). After the Government refused to settle, Moriber resubmitted a permit application, which the Corps denied on March 8, 1993. A change in local regulations in 1988 had resulted in a designation of Moriber's property as subject to environmental protection, and he was unable to demonstrate -- when he re-applied to the Corps -- that he would have obtained local permission to proceed with the mining; thus, there was "no diminution in the value of the property as of the date of the alleged taking attributable to actions of the Federal Government." 33 Cl. Ct. at 233.

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While the scope of this Court's review is narrow, it is not without dimension. *Olenhouse v. Commodity Credit Corp.*, 42 F.3d 1560, 1576 (10th Cir. 1994). "The public will need to review the total costs (ecological, economic, and social) of its current usages of rock products. Will it be willing to accept the accelerating costs or will it look for alternatives, alternative materials for road or building construction and/or more extensive recycling? Ultimately, the public's need for the rock product will have to change and private industry will react, but it is not the role of the Corps to dictate to the public or to manage the State's economy." AR1028 at 39. As the Court cannot say that the Corps' balancing was conducted according to NEPA, particularly in light of the Corps' reliance on reports that should have been subjected to independent verification, remand is necessary.

5. Any irreversible and irretrievable commitments of resources which would be involved in the proposed action if implemented

The Corps must "ensure[] that important effects will not be overlooked or underestimated only to be discovered after resources have been committed or the die [*201] otherwise cast." *Sierra Club*, at 1214, quoting *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, 349 (1989). It is undisputed that mining has serious adverse effects. Clearly, once the wetlands have been eliminated by mining, they are irretrievable. Although the mining companies will be constructing shelves around the lake to function as artificial wetlands, n193 the ecological value of the shelves and the quarry pits is low, as they differ significantly from any natural part of the Everglades landscape. Early in the process of analyzing the Lake Belt Plan, in November 1995, the Florida Game and Fresh Water Fish Commission noted that the deep lakes don't function the same as shallow wetland systems, and that the destruction of limestone walls around the Aquifer is irreversible. AR242. In addition, the transmissivity of the Aquifer and its important role in South Florida render it particularly vulnerable to contamination. If the water must be treated to drinking water standards, the County will have to install new purification systems, and it is unclear what effects the contamination might have on the other aspects of the hydrological system.

6. [*202] Public participation

Meaningful public participation is a vital part of NEPA; "accurate scientific analysis, expert agency comments, and public scrutiny are essential to implementing NEPA." 40 193A competing use would then be further development, particularly if the property remains in private hands. C.F.R. 1500.1(b). n194 The CEQ regulations require that "[high quality] environmental information [be] available to public officials and citizens before decisions are made and before actions are taken." 40 C.F.R. 1500.1(b). Public officials and members of the public have every right to expect that an EIS will contain a clearly written and concisely presented environmental analysis, rather than a compilation of hundreds of pages of reports from which quotations have been excerpted. For example, the EIS at issue herein contains 95 pages, accompanied by multiple annexes and appendices, for a total of approximately 1,000 pages; the section entitled Land Use, AR614 at 58, contains five pages of text essentially copied directly, i.e., without evaluation thereof, from Appendix E, a fifteen page "Lake Belt Land Use Report," AR614 at 805. n195 In contrast, the EIS [*203] contains just slightly more than one page, AR614 at 18, summarizing approximately one hundred pages of a Water Quality Evaluation prepared by EPA, Appendix B, AR164 at 266. A sample of the text follows:

Total organic carbon was lower in borrow pit [i.e., mining quarries] samples than in canal and groundwater samples. Paired comparison of borrow pits and proximate canals [and proximate groundwater stations]] found total organic carbon as much as 10 mg/L lower in borrow pits than corresponding canal stations [and groundwater stations]. . . . The lower borrow pit levels may be a result of chemical and bacterial oxidation of the organic substances in the water and/or a result of absorption of carbonate and oxide precipitates.

AR614 at 29. It is unclear what conclusion a public official or member of the public, presumably neither of whom are trained water chemists, might draw from this information. The CEQ regulations direct agencies to "incorporate material . . . by reference when the effect will be to cut down on bulk without impeding agency and public review of the action." 40 C.F.R. 1502.21. The Corps' preparation of this EIS does not [*204] comply with this regulation, as the Corps either has included too much repetitive text with insufficient analysis or has abbreviated drastically such that the reader is unable to interpret the information.

n194 This requirement mirrors the public participation requirement of the CWA, discussed later in this opinion.

n195 Similarly, the EIS presents a ten-page section on vegetation, AR614 at 31, which copies text -- with little critical analysis thereof -- from a 23-page report, Appendix C, AR614 at 374, prepared by private consultants.

The Corps also was at times unclear in the information that it made available to the public -- particularly as to the extent of the mining being permitted. The Public Notice issued with the EIS in June 2000 reported that the mining impact area of 14,300 acres represented the "total extent of renewals and expansions" and that it included 5,900 acres already permitted. AR623A. According to the Memorandum for Record dated September 29, 2000, which addressed the expiring permits [*205] that were to be renewed as part of the fifty year mining plan, the permit extensions did "not change the extent or nature of work related to the originally authorized excavation or fill. . . . [and] only extend[ed] the timeframe in which to complete the mining activities." AR718. The Revised Public Notice issued in March 2001, which superseded the earlier Notice, is silent as to whether it includes any renewals, and it appears to address fewer acres (the total acres of impact is not included, but the sum of the requests from each mining company is 3,959.07) than what were allegedly "remaining to be mined but already permitted" (5,900 according to the first Public Notice). AR737. The Revised Notice also does not compare with what ultimately was permitted by the ROD, i.e., 5,409.32 acres -- rendering it difficult, if not impossible, for the Court, or any member of the public, to discern a reasonable estimate of the number of acres being permitted by this action. This is just one example of the-Corps' inattention to detail in the few documents which it did make available to the public.

Further, after the EIS was distributed in June 2000, the Corps failed to provide important information [*206] to the public regarding the potential contamination of the municipal drinking water source and other issues before the Corps made the decision to issue the permits. For example, the EIS reports that: "at this time, it has not been determined what

is needed as a safe buffer to protect the water supply." AR614 at 70. The public was not provided any further information on protection of the wellfields prior to the ROD, and the ROD simply reports that certain actions were taken to "minimize[] the potential for impact to the public health while the risk assessment and amendment of the [County's wellfield protection] ordinance are being reviewed." AR1028 at 55. Nor was the public given an opportunity to comment on the draft permit template or the ten special conditions placed on the permits. The existence of these items in the record is not enough to meet NEPA. "Because public disclosure is a central purpose of NEPA, an EIS that does not include all that is required by NEPA may not be cured by memoranda or reports that are included in the administrative record but are not incorporated into the EIS itself." *Sierra Club v. Marsh*, 976 F.2d 763, 770 (1st Cir. 1992) (EIS [*207] considered reasonably foreseeable impacts related to construction of marine cargo terminal and causeway to port facility). n196

n196 The Industry Defendants assert repeatedly that information "already was disclosed" to Plaintiffs, Reply Brief, Docket Entry # 44, at 10, apparently suggesting that the Plaintiffs' participation in the Lake Belt Committee -- which, again, did not include the Corps among its voting members -- and in other non-Corps sponsored discussions of the EIS in some manner satisfies NEPA's public participation requirements. Clearly this position is untenable, for NEPA requires disclosure to the public, not just activist organizations such as Plaintiffs, of the specific information supporting the Corps' decision, including the specific decision documents issued by the Corps. The Corps cannot rely on other agencies to conduct public hearings on its behalf.

7. Coordination among agencies

The lead agency preparing the EIS has responsibility for ensuring the involvement of all other cooperating [*208] agencies. 40 C.F.R. 1501.6; *Sierra Club v. United States Army Corps of Eng'rs*, 295 F. 3d 1209, 1215 (11th Cir. 2002). The Corps was the lead agency here, but an early commitment was received from EPA and FWS that they would participate as cooperating agencies. The Corps' relationship with EPA with respect to the review of 404(b) permits is addressed in a Memorandum of Agreement between the agencies. The Corps will not evaluate applications as a project opponent or advocate -- but instead will maintain an objective evaluation, fully considering all relevant factors.

The Corps will fully consider EPA's comments . . . and views when determining whether to issue the permit, to issue the permit with conditions and/or mitigation, or to deny the permit. It is recognized that the EPA has an important role [under] the Clean Water Act, National Environmental Policy Act, and other relevant statutes. When providing comments, only substantive, project-related information (within EPA's area of expertise and authority) on the impacts of activities being evaluated by the Corps and appropriate and practicable measures to mitigate adverse impacts will [*209] be submitted. n197

Memorandum of Agreement Between Environmental Protection Agency and the Department of the Army, dated August 11, 1992, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997).

n197 The 1992 Memorandum of Agreement between the EPA and the Department of the Army was adopted to minimize duplication of efforts by the two agencies, and consequent delays, when issuing permits under Section 404, particularly in light of the two agencies' parallel governing regulations. The MOA "does not diminish either Agency's authority to decide whether a particular individual permit should be granted." Memorandum of Agreement Between Environmental Protection Agency and the Department of the Army, dated August 11, 1992, *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997).

The relationship between the FWS and the Corps also is the subject of specific guidance. The Corps is directed to give great weight to FWS because it generally has more expertise in the area of mitigation. [*210] 16 U.S.C. 662(a), 33 C.F.R. 320.4. Moreover, the agencies are to "foster strong professional partnerships and cooperative working relationships." Memorandum of Agreement Between the Department of the Interior and the Department of the Army (December 21, 1992), *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997).

Early in the permitting process, FWS announced that it did not have funding to conduct independent research, AR83, although its staff participated regularly in interagency meetings and discussions. At some point in 1997, Corps staff began showing their frustration with FWS staff. A Corps staff member wrote to an FWS staff member, asking that FWS specify its "precise" reservations regarding the 2.5:1 mitigation ratio and noting that EPA already had agreed to this number. In 2001, senior Corps staff responded to a site visit request from FWS by stating that "you [FWS] are really in a tough spot coming in after all the site visits." AR741; later that same year, Corps staff suggested that the District Engineer himself contact staff at EPA and FWS directly and remind them of their role with respect to Corps staff. [*211] AR931. More frustration is evident in the following statement. This is so wasteful of our time, . . . we have probably had fifteen FWS staff involved in this since the early 1990s." AR934. The expressed tension between these public servants is unfortunate, particularly in light of the challenges faced by each individual involved.

As it is, a government policymaker is placed by NEPA in a difficult enough posture with respect to controversial federal programs. On the one hand, in response to public pressure to find means of satisfying our ever-increasing and widespread national energy needs, he is expected to originate and consider proposals for exploitation of our natural resources. On the other, he is obligated by NEPA to proceed with such proposals only when, in his honest judgment and after full detailed study and balancing of all relevant factors, he concludes that the project is worth the environmental cost. Although the task might be lightened by placing the burden of making the final decision elsewhere -- such a procedure conceivably could lead to more objective resolution of the conflict -- under present law it continues to rest on the same person's shoulders, undoubtedly [*212] in part because he and his subordinates are more familiar with all of the relevant facts and circumstances than anyone else in government.

Suffolk County v. Secretary of the Interior, 562 F.2d 1368, 1389 (2d Cir. 1977) (citations omitted) (offshore drilling program). The Corps' insistence that FWS agree to the Corps' conclusions, particularly as to an appropriate mitigation ratio, was a source of frustration for staff members of both agencies which was not resolved until FWS conceded to the ratio. While the Court would not remand this permit for the sole reason of the Corps' and FWS' apparent problems in coordination, it nevertheless would be more consistent with their regulatory duties if their cooperation was improved upon in the future.

In conclusion, the Court has determined that, according to NEPA, the EIS was not legally sufficient to support the decision to issue the permits and that this case must be remanded for at least five reasons: 1) the information contained in the EIS and its accompanying Public Notice was inaccurate, incomplete, and unclear; 2) the analysis of alternatives was insufficiently rigorous and therefore misleading; 3) methods for [*213] protecting the municipal water supply were neither identified nor established; 4) seepage impacts were not studied sufficiently nor mitigated for; and 5) the Corps failed to report, or even account for, the foreseeable loss of wood stork habitat. The present case seems to be an example of the very reason for which NEPA was enacted. Prior to the passage of NEPA, "the benefits of development were overstressed and less environmentally damaging alternatives for meeting program objectives were often given less consideration." *Skinner*, at 1540 (11th Cir. 1990). 122

B. APA

Having determined that the Corps violated NEPA, and because the standards are nearly identical, the Court similarly concludes that the Corps violated the APA, § 706(2), for all of the reasons addressed above. As an additional basis, the Court determines that the Corps acted "without observance of procedure required by law," 5 U.S.C. § 706(2)(D); see, e.g., *Alamo Express, Inc. v. United States Interstate Commerce Commission*, 613 F.2d 96 (5th Cir. 1980) (invalidating grant to carrier of right to transport products to international boundary as having been issued without [*214] notice and comment by other carriers, contrary to procedure outlined in controlling cases).

IV. DID THE CORPS VIOLATE NEPA OR THE APA BY FAILING TO ISSUE AN SEIS (COUNT V)

Plaintiffs allege that the Corps has compounded the aforementioned violations in the original EIS by failing to prepare a SEIS either in response to new information received before the Corps issued the ROD, or to address substantial changes made in the mining/permitting plan between when the EIS was issued in June 2000 and the date the ROD was issued in April 2002, and therefore has violated NEPA and section 706(2) of the APA. The Court's determination as to whether a violation of APA 706(2) occurred is guided by the analysis in the preceding section regarding NEPA viola-

tions in the original EIS (and also by the discussion, *infra*, of the Corps' violation of the CWA and the ESA in preparation of the ROD). Plaintiffs note that the Corps rejected demands for a SEIS made by FWS (AR605, May 26, 1999), n198 EPA (AR713, FAR41, September 20, 2000), and Plaintiffs (AR963, January 25, 2002).

n198 FWS made its request prior to publication of the Final EIS, but the majority of the agency's criticisms were not addressed by the Final EIS -- indeed, were unable to be addressed prior to June 2000 -- and, thus, remained pending.

[*215]

As previously discussed, NEPA ensures that environmental considerations are given proper deliberation throughout the decision making process. NEPA "places upon an agency the obligation to consider every significant aspect of the environmental impact of a proposed action." *Baltimore Gas and Elec. Co. v. Natural Resources Defense Council, Inc.*, 462 U.S. 87, 97 (1983). Although NEPA, 42 U.S.C. § 4332(2)(c), itself doesn't explicitly require a SEIS, it has been read to include a SEIS as part of the "hard look" n199 required of an agency, but only if a "major Federal action" is yet to occur. *Norton v. Southern Utah Wilderness Alliance*, 124 S.Ct. 2373 (2004) (court can only compel agency to take a discrete action that it was required to take, evidence of increased use of off-road vehicles in federal lands did not trigger preparation of a supplemental EIS under NEPA, allowing use of off-road vehicles in wilderness study areas did not violate federal land management policies since there was no further federal action to take place). In the present case, of course, it is clear that a major federal action remained: issuance of the permits/ROD. [*216]

n199 "An agency has met its hard look' requirement if it has examine[d] the relevant data and articulate[d] a satisfactory explanation for its action including a "rational connection between the facts found and the choice made."" *Sierra Club v. Corps*, 295 F.3d 1209, 1216 (11th Cir. 2002), quoting *Motor Vehicle Mfrs. Ass'n of the U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

NEPA's implementing regulations for the Corps (33 C.F.R. 230.11(b)) and those adopted by the Council on Environmental Quality (CEQ) (found at 40 C.F.R. 1502.9(c)(1)) provide, respectively, that an EIS must be supplemented "whenever significant impacts resulting from changes in the proposed plan or new significant impact information, criteria or circumstances relevant to environmental considerations impact on the [proposed plan]," or where the "agency makes substantial changes in the proposed action that are relevant to environmental [*217] concerns [or there are] significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts." n200 In this case, there were both changes and new information which should have triggered an SEIS.

n200 For example, failing to consider cumulative impacts might be enough reason to require a SEIS. *Oregon Natural Resources Council v. Marsh*, 52 F.3d 1485 (9th Cir. 1995) (remand for additional SEIS as to failure to study cumulative impacts).

When changes to the proposed project are made, a supplemental EIS is required "if [the changes] will have a significant impact on the environment that has not previously been covered by the [original] EIS." *National Wildlife Federation v. Marsh*, 721 F.2d 767, 782 (11th Cir. 1983); *Environmental Defense Fund v. Marsh*, 651 F.2d 983 (5th Cir. Unit A1981) (3.5% volume change in character of affected lands was not significant). In the present case, the Corps made several [*218] changes to the permit which were "substantial" and that had a significant impact on the environment: the authorization of mining as close as 1,000 feet east of the L-31N canal "if determined necessary for a public purpose;" n201 the agreement that mining was presumed to continue after the initial review rather than to requiring an affirmative renewal of the permits; n202 and the decision not to require transfer of mined lands or conservation easements as a condition of the permits. n203

n201 Compare the EIS, AR614 at 99, to the ROD, AR1028 at 4, 53, 140. Also, compare AR614 at 90 ("mining of approximately 21,000 acres of wetlands at total project buildout will have an irreversible significant

impact on the environmental resources of the region") to AR1028 at 113 ("this permit action will not have a significant impact on the quality of the human environment").

n202 Compare the EIS, AR614 at 69-71, to the ROD, AR1028 at 73.

n203 Compare AR614 at 99 to AR1028 at 70.

"If new information regarding endangered [*219] species [becomes] available, or if environmental consequences not already evaluated [come] to light, the Corps [is] required to prepare a . . . SEIS." *Sierra Club v. Army Corps of Engineers*, 295 F.3d 1209, 1219-20 (11th Cir. 2002). The Corps' failure to discuss in the EIS the potentially adverse effects on the endangered wood stork, discussed in detail below, n204 was compounded by the Corps' failure to include the late-prepared BA in any NEPA document until the permits were issued. n205 The County's technical reports in August 2000 regarding the hydrology of the area, AR1175 and AR1176, n206 also constituted new information that was significant and relevant to the proposed project. *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 374, 385 (1989) (new information wasn't significant enough to require SEIS as to dam construction project). EPA asked for SEIS. An agency may determine that the preparation of an Environmental Assessment (EA) is sufficient, instead of preparing a SEIS. The EA is the agency's decision on whether to prepare an SEIS/EIS or to issue a Finding of No Significant Impact (FONSI). 40 C.F.R. 1501.4 [*220] . Here, the Corps' FONSI, AR1028 at 113, represents the agency's determination that supplementation is not necessary. In other words, the ROD includes the Corps' EA, which concludes that no SEIS/EIS is required.

n204 A senior Corps staff member noted that the Corps had no idea what design changes could be made if it was determined that there was an adverse effect on the wood stork. AR688 at 109.

n205 *Hughes River Watershed Conservancy v. Glickman*, 81 F.3d 437, 444 (4th Cir. 1996) (remand for SEIS on dam project in view of substantial comments from EPA and FWS as to zebra mussel infestation that hadn't been seriously considered by Corps).

n206 The EIS states that the effects of groundwater seepage are "not immediate" and that because the "recommended plan is based on 50 years of mining [therefore] the total effect will not be seen until then." AR614 at 99. The ROD states that "there are groundwater seepage impacts." AR1028 at 52.

The Federal Defendants argue that no SEIS was required and [*221] that the FONSI was justified, because the reduction from fifty years of mining envisioned in the EIS, to ten years as provided in the permits, n207 was a minimizing change that did not trigger the additional in-depth analysis of an SEIS, and the reduced period of mining satisfied the objectors' concerns. Certainly, "when an agency implements a minimizing measure, it is not automatically required to redo the entire environmental analysis," but the Eleventh Circuit directs that even where post-EIS changes are entirely beneficial, "if they are significant, they require an SEIS." *Sierra Club v. Army Corps of Engineers*, 295 F.3d 1209, 1221-22 (11th Cir. 2002) (citing *National Wildlife Federation v. Marsh*, 721 F.2d 767, 782-83 (11th Cir. 1983)). n208 The timing of the EA is relevant. n209

n207 The Court previously has observed that the administrative record reveals the Corps' (and the mining industry's) intention of renewing these permits to a total of 50 years. See, for example, the discussion above regarding "bridging permits."

n208 The appellate panel in *Sierra Club* noted that other circuits have questioned the Circuit's earlier decision in *Marsh*, and that the more rigorous EAs now required may serve as a limit on the holding of *Marsh*. "EAs are now generally considered thorough enough to permit a higher threshold for requiring environmental impact statements." *Sierra Club*, 295 F.3d at 1222 fn17 (noting that early Fifth Circuit cases that directed Eleventh Circuit precedent dealt with EAs that since have become more stringent)(quoting *River Road Alliance, Inc. v. U. S. Army Corps of Engineers*, 764 F.2d 445, 451 (7th Cir. 1985)).

[*222]

n209 This case is distinguishable from *Fund for Animals, Inc. v. Rice*, 85 F.3d 535 (11th Cir. 1996) for at least two reasons. The Corps had conducted an EA after receiving permit applications, and then received not just one but several BOs. (Corps not arbitrary or capricious in determination that an EIS was not required for decision to locate landfill in wetlands where no upland site was available. The EA had been completed in 1994, four years after notice of the permit application, and after FWS issued a Biological Opinion which consented to the project. In response to objections received from EPA, the applicant reduced the requested impact on wetlands; also, further consultation with FWS resulted in the preparation of two additional Biological Opinions). Contrast that case with the present one, in which the EIS was issued in 2000, with no update, and prior to the receipt of multiple substantial objections from FWS, EPA, local governmental agencies and others; moreover, no Biological Opinion was prepared before issuance of either the EIS or the EA. See, e.g., *Fund for Animals, Inc. v. Rice*, 85 F. 3d 535, 541 (11th Cir. 1996).

[*223]

EPA recommended that the Corps prepare a supplemental EIS to address "all of the currently unresolved fundamental environmental issues. . . . this proposal is so protracted (50 years) and the wetland impacts are so unprecedented . . . EPA continues to have serious reservation [sic] about the water supply impacts of the proposed Lakebelt mining activities on the Northwest Well Field. . . ." AR713. Frustration was experienced by all parties. As previously noted, a senior Corps staff member expressed concern in July 2001 that the mining consortium might "collapse" and that the Corps' workload would surely increase as a result. AR 843. n210 There are several indications in the record that the requests for the Corps to prepare a SEIS fell on deaf ears. n211 The Corps clearly was concerned, as discussed earlier, about keeping the permitting process on track in order to keep the \$.05 per ton fee and to avoid additional inverse condemnation actions. After the Florida Rock takings litigation settled, in 2001, n212 the Corps was free to stop rushing. The Corps had extended the permits through January 31, 2002, AR931. However, they said -- perhaps in light of the Florida Rock settlement [*224] -- that the new permit decisions "should not be further delayed for further studies." AR1028 at 112. When the EPA finally withdrew its objections in February 2002 (FWS already had withdrawn its objections in December 2001 n213), there was little remaining impediment to the Corps' granting of the permits.

n210 According to the Corps, the Jacksonville District workload is approximately 8000 permit applications per year. Affidavit of John R. Hall, Chief of the Regulatory Division of Jacksonville District, Corps, Nov. 15, 2002 (Docket Entry # 2, Federal Defendants' Reply brief re: motion to transfer, Exhibit 1).

n211 Prior to issuing the EIS, the Corps had been urged to await the completion of the Phase II plan, but that Plan was delayed and was inadequate. Announcing that "the decisions on renewals and new mining permits have been delayed long enough, therefore the EIS will be finalized so that the information in it can be used in the decisions," the Corps responded to its critics and stated that it could not commit to a SEIS because it could not "predict future funding authority" nor could it "predict how extensive the changes will be in the Phase II Master Plan that would warrant a supplement." AR586.

[*225]

n212 The Court was unable to locate a specific date of the Florida Rock settlement. 213FWS based its decision to concur with the Corps on a Biological Assessment provided by mining consultants; that document was not prepared until April 2001, and thus was not included with the EIS.

The Court already has concluded that the original EIS was so lacking that it must be remanded to the Corps for further development, which renders the question of supplementation largely irrelevant. Nevertheless, the Court hereby concludes that, based upon the EIS as published, the changes which occurred subsequent to its publication, and the new information, e.g., with respect to the wood stork, that a SEIS should have been prepared and the Corps violated NEPA and the APA by failing to do so. The Corps is directed, on remand, to prepare an EIS which comports with NEPA. n214

n214 If the information recently presented to the Corps, in February 2004, had been provided prior to the Corps' decision to issue the permits (and after issuance of the EIS), the Court very likely would have been compelled to find that the failure to prepare a SEIS violated NEPA.

[*226]

V. DID THE CORPS' ISSUANCE OF THE PERMITS COMPLY WITH THE CWA AND THE APA 706(2)? (COUNT I)

Plaintiffs allege that the Corps violated the CWA and APA § 706(2) by issuing the mining permits without conducting a public hearing or providing adequate public notice. Plaintiffs also argue that the Corps failed to explain the loss of wetland functions attributable to each mining permit, and failed to provide a sufficiently complete mitigation plan, or to explain how the project would avoid harmful effects on wildlife and water quality. In addition, Plaintiffs attack the preparation of the EIS, as well as the ROD, under the CWA -- asserting that the Corps did not adequately develop and analyze alternatives to the proposed mining, and failed to evaluate all the direct, indirect and cumulative impacts.

A. The CWA and its implementing regulations

The CWA prohibits the discharge of any pollutants into "navigable waters," 33 U.S.C. § 1311(a), defined as "waters of the United States." 33 U.S.C. § 1362(7). The law has developed to include certain wetlands within this definition, as they "may function as integral parts of the [*227] aquatic environment." *U. S. v. Riverside Bayview Homes, Inc.*, 474 U.S. 121, 135, 139 (1985) (Corps had jurisdiction over wetlands that abut a navigable waterway). n215 It is undisputed that the wetlands at issue herein qualify as "waters of the United States," and the mining activities result in the discharge of "pollutants," consistent with the definitions of these terms found in the CWA's implementing regulations. 33 C.F.R. 323.2, 33 C.F.R. 328.3, 40 C.F.R. 230.3. n216 Congress has provided, however, for certain discharges of pollutants to occur and has specified, in Section 404 of the CWA, the exacting conditions under which (dredge and fill) permits may be issued to allow for the otherwise illegal discharge of pollutants. 33 U.S.C. § 1344. Guidelines to limit such discharges have been developed by EPA under Section 404(b)(1), i.e., 33 U.S.C. § 1344(b)(1), and are found at 40 C.F.R. Part 230. n217

n215 33 C.F.R. 328.3(a), adopted in 1986, specifically defines wetlands "adjacent to waters [of the United States]" as being within the CWA's protection. "Wetlands" are defined as "areas that are inundated or saturated by surface or ground water at a frequency and duration to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions." 33 C.F.R. 328.3(b).

[*228]

n216 The term "pollutant" includes rock or sand discharged into water, 40 C.F.R. 230.3(o), or any "material that is excavated or dredged from" waters. 33 C.F.R. 323.2. Recall also that roads and workpads that are part of the mining also are considered "fill" in a wetland.

n217 The 404(b)(1) Guidelines, in final form, were promulgated by the Administrator of EPA and the Secretary of the Army on December 24, 1980. See Memorandum to the Field, "Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements," available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/flexible.htm>

The Corps makes both individual and general permit n218 decisions, and the EPA develops and interprets environmental criteria used in evaluating permit applications; EPA also reviews and comments on individual permit applications. n219 The EPA, as well as FWS, can elevate to a higher level review n220 specific cases pursuant to Section 404(q) of the CWA, but only "those cases that involve aquatic [*229] resources of national importance." n221 AR468. The Corps may issue a general permit for "categories of activities" on a state, regional, or nationwide basis, 33 U.S.C. § 1344(a), (e), when they are substantially similar in nature and "cause only minimal individual and cumulative [adverse] environmental impacts" or when it would avoid unnecessary duplication of the regulatory authority exercised by another Federal, state or local agency -- provided it has been determined that the environmental consequences of the action

are individually and cumulatively minimal. 33 CFR 322.2(f). Before a case or an issue is "elevated" there must be attempts to resolve the environmental concerns at the field office level, then at the Regional level, and finally at the national level -- with the final decision resting with the Assistant Secretary of the Army for Civil Works. n222

n218 The limestone mining industry herein was seeking a "general permit" -- which would have allowed mining to proceed without individualized review and based simply upon compliance with several conditions applicable generally within the region. The Corps originally intended to issue a General Permit, delegating its authority to DERM.

[*230]

n219 The Senate bill which later became Section 404 of the CWA originally gave EPA the authority to administer the Section 404 permits, but after a compromise with the House of Representatives, the resulting legislation gave that authority to the Corps, subject to oversight by EPA. Senator Muskie was concerned that the Corps might not be as protective as the EPA. "The Corps of Engineers, a mission-oriented agency, is not equipped to evaluate the environmental impact of these dredging activities. . . . Mission-oriented agencies whose mission is something other than concern for the environment simply do not adequately protect environmental values. That is not their mission. They would do a disservice to their mission if they would try to act as environmental protectors. The mission of the Corps of Engineers is to protect navigation. Its mission is not to protect the environment." 117 Cong. Rec. 38854 (1971) (statement of Sen. Muskie, during Senate Consideration and Passage of S. 2770)."

n220 One FWS staff member recommended, in an intra-agency email message, that elevation be sought. "Although this may cause a scream, I think that a 404(q) [elevation] should be issued for this permit in order to once and for all bring the Pensucco wetland program into a controlled and equalized protocol." FAR57 (July 20, 2000). That staff member noted that the determination that there would be "no effect" on protected species was incorrect; "how can the loss of 14,300 acres of emergent sawgrass marsh to the South Florida Everglades not impact the foraging of wood storks." Id.

[*231]

n221 According to the FWS website,

www.fws.gov/habitatconservation/elevations.htm, there have been only sixteen cases in which the Department of the Interior has requested elevation to the Department of the Army.

n222 A 1992 Memorandum of Agreement between the EPA and the Department of the Army was adopted to minimize duplication of efforts by the two agencies, and consequent delays, when issuing permits under Section 404. The MOA "does not diminish either Agency's authority to decide whether a particular individual permit should be granted. . . ." Memorandum of Agreement Between Environmental Protection Agency and the Department of the Army, dated August 11, 1992, reprinted in Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997).

The statute, i.e., the CWA, itself imposes several obligations. Public participation "shall be provided for, encouraged, and assisted" in enforcing the CWA's standards, 33 U.S.C. § 1251(e), 33 U.S.C. § 1344(o) n223, and permit decisions must include analysis of "unacceptable adverse effect[s]" on municipal water [*232] supplies, wildlife or recreational areas, 33 U.S.C. § 1344(c). Additional requirements are found in the CWA's implementing regulations, which have been promulgated both by the EPA, 40 C.F.R. Part 230, and by the Corps, 33 C.F.R. Parts 320-329. The Corps' CWA regulations expressly incorporate the regulations promulgated by the EPA to implement the CWA. See e.g., 33 C.F.R. 320.4(b)(4), 33 C.F.R. 325.2(a)(6); thus, the Corps must ensure that the permitted activity is consistent with the 404(b)(1) Guidelines.

n223 There is a requirement of an "opportunity for public hearings," 33 U.S.C. 1344(a), but the relevant regulations provide the Corps with the discretion not to hold a hearing if there is "no valid interest to be served by a hearing." 33 C.F.R. 327.4(b).

The CWA's regulations prohibit the issuance of a permit in this case if: 1) an environmentally preferable and practicable alternative [*233] exists; or 2) the proposed mining activity will cause or contribute to significant degradation of the subject wetlands -- measured by significantly adverse effects on municipal water supplies, wildlife and wildlife habitat, or aesthetic values, etc.; or 3) potential adverse impacts are not minimized through appropriate and practical steps. 40 C.F.R. 230.10.

B. Analysis of practicable alternatives

The 404(b)(1) Guidelines prohibit the "discharge of dredged or fill material . . . if there is a practicable alternative to the proposed discharge which would have less adverse impact on the aquatic ecosystem, so long as the alternative does not have other significant adverse environmental consequences." 40 C.F.R. 230.10(a). n224 A practicable alternative is one that is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes." 40 C.F.R. 230.10(a)(2). The fundamental principle behind the CWA's "practicable alternatives" test is that industry and private developers should first seek project sites that will have the least [*234] damaging effects on wetlands and their ecosystems, and only when no such sites exist should development of wetlands be considered as an option, subject, of course, to obtaining the necessary permits. The Corps clearly violates the CWA regulations, and therefore its conduct is arbitrary and capricious, n225 when it permits a developer to obtain a permit on his chosen site because that site is the "most practicable" or "most profitable," if development of that site will result in greater environmental damage than would be realized at another available site. n226

n224 The Corps' own regulations also require that it take into account practicable alternative locations and methods for accomplishing the project's objective. 33 C.F.R. 320.4(a)(2)(ii).

n225 The Corps' own regulations incorporate the 404(b)(1) Guidelines, 40 C.F.R. 230.10, and a violation thereof renders the Corps' conduct arbitrary and capricious.

n226 As described in *Bersani v. Robichaud*, 850 F.2d 36, 44 (2d Cir. 1988) (upholding EPA denial of permit for shopping mall development where alternative environmentally preferable site had been available when proposed site was purchased), if a developer has little incentive to search for alternatives, especially if she is confident that alternatives would soon become unavailable, then the regulation -- which is designed to provide an incentive to avoid choosing wetlands -- would be turned on its head.

[*235]

Clearly, the Corps must have a firm grasp on exactly what is the "overall project purpose" in order to commence its analysis whether there are practicable alternatives. Understanding the purpose of a project also is key to a determination of whether the proposed activity "does not require access or proximity to or siting within the special aquatic site in question to fulfill its basic purpose (i.e., is not water dependent')." If the activity does not require that water-based location, then there is a rebuttable presumption that there are practicable and environmentally preferable alternatives, 40 C.F.R. 230.10(a)(3), and such alternatives are presumed to have less adverse impact unless "clearly demonstrated" otherwise. n227

n227 In 1993, the Corps issued Regulatory Guidance Letter ("RGL") 93-2, reprinted in William L. Want, *Law of Wetlands Regulation* (2005), which suggested that -- as to the evaluation of alternatives -- the extent of the analysis should be "commensurate with the severity of the environmental impact . . . and the scope/cost of the project." While this RGL expired at the end of 1998, it is relevant to the Court's consideration because the Corps was reviewing the mining permits between August 1993 and December 1998, i.e., while RGL 93-2 was in effect.

[*236]

The burden of demonstrating that no practicable alternative exists is the sole responsibility of the applicant, not the Corps' nor the other federal agencies. It is intended that this presumption should have the effect of forcing a hard look at the feasibility of using environmentally preferable sites' to discourage avoidable discharges in special aquatic sites, including wetlands." Review and Findings, Old Cutler Bay Permit 404(q) Elevation (September 13, 1990) at page 5, quoting from Preamble to 404(b)(1) Guidelines, 45 Fed. Reg. 85336 (1980), reprinted in Margaret N. Strand, Wetlands Deskbook (2d ed. 1997). n228 The Court's earlier discussion of the alternatives analysis required by NEPA, particularly as to the definition of project purpose, is incorporated herein.

n228 The same Corps district involved in the Old Cutler Bay decision, i.e., the Jacksonville District, made the decision under review by this Court. The decision in Old Cutler Bay was issued by the Corps' national Director of Civil Works and involved facts strikingly parallel to those at issue herein. The desired development included an area of infestation by an exotic plant species, the Brazilian Pepper; the developer intended to mitigate the wetlands destruction by constructing littoral zones around lakes that would remain after the housing development was completed and by restoring off-site wetlands; the project size and impact were reduced as a result of interagency coordination; and the Corps had relied primarily on the applicant's own supplied data to evaluate the viability of practicable alternatives. While the Director did not disapprove of the mitigation plan or the final size and impact of the development he did find that the Corps needed to more clearly document the basis of its approval of the permits, particularly as to its evaluation of the applicant's alternatives analysis.

[*237]

1. The project's purpose

A competent analysis of alternatives depends upon a clear and accurate statement of the project's purpose, for it is only when the project's statement of purpose is "reasonably defined that the alternatives analysis required by the Guidelines can be usefully undertaken by the applicant and evaluated by the Corps." Old Cutler Bay, Oct. 9, 1990, at 6 (stated purpose to "construct an upscale residential/(Jack Nicklaus-designed) championship golf course community in south Dade County. The project's basis purpose is to realize a reasonable profit by providing luxury country club type housing to an affluent segment of the Miami area population . . . 428 units" was rejected as too specific, acceptable statement would have been "to construct a viable upscale residential community with an associated regulation golf course in the south Dade County area"). n229

n229 Interestingly, the Corps' Director of Civil Works has issued a total of three decisions concerning application of the 404(b)(1) guidelines "practicable alternatives" test, including Old Cutler Bay, and in all three, the Director found that the District Engineer had incorrectly construed the guidelines too favorably to the landowner. William L. Want, Law of Wetlands Regulation § 6:21, at 6-22.2 (2005). "We have stated that great care must be used in determining the basic project purpose for purposes of the 404(b)(1) Guidelines alternatives analysis. We have also emphasized that Corps districts must use independent judgement in determining project purpose. The basic project purpose must not be so narrowly identified so as to unduly restrict a reasonable search for potential practicable alternatives." Old Cutler Bay at 13-14, referencing earlier decisions in section 404(q) elevations of the Plantation Landing Resort and Hartz Mountain Development Corporation cases.

[*238]

There is little guidance in the CWA or its regulations as to what constitutes a "water-dependent" activity, nor does the definition of a project's purpose receive much attention at the statutory or regulatory level; however, this Court's review discovered an internal Corps' statement of standard operating procedures which is instructive.

Defining the purpose of a project involves two determinations, the basic project purpose, and the overall project purpose. . . . The basic purpose of the project must be known to determine if a given project is water dependent.' For example, the purpose of a residential development is to provide housing for people. Houses do not have to be located in a special aquatic site to fulfill the basic purpose of the project, i.e., providing shelter. Therefore, a residential development is not water dependent. . . . Examples of wa-

ter dependent projects include, but are not limited to, dams, marinas, mooring facilities, and docks. The basic purpose of these projects is to provide access to the water.

Army Corps of Engineers Standard Operating Procedures for the Regulatory Program (October 15, 1999), available at: www.saw.usace.army.mil/wetlands/Policies/SOPI. [*239] pdf ("SOP"). n230

n230 This statement appears on the website for an unrelated district of the Corps, but seems to be of general application; the Court cites it here solely for illustrative purposes, and does not suggest that it has the effect of regulatory guidance.

The basic project purpose should be "neither so broadly defined nor alternatively so narrowly defined so as [to] render the alternative analysis meaningless or impracticable. In both cases this would subvert the intent of the Guidelines." Old Cutler Bay at page 6. "The project purpose must be defined so that an applicant is not in the position to direct, or appear to direct, the outcome of the Corps evaluation required under the 404(b)(1) Guidelines." *Id.* at 7. n231 Although the regulations do not specify the source of the definition of a project's purpose, n232 "defining the overall project purpose is the responsibility of the Corps, [and] the applicant's needs must be considered in the context of the desired geographic area of the development, [*240] and the type of project being proposed." SOP. The Corps (and the Court) can consider areas not owned by applicant. 40 C.F.R. 230.10(a)(2), "Districts should not focus too heavily on the specific profitability statements of the particular applicant before them." Old Cutler Bay, Oct. 9, 1990, at 9. "Although project viability' is one legitimate component of the concept of practicability' regarding any alternative being considered in the practicable alternatives review, that component is addressed in terms of the logistics, technical feasibility, and costs criteria in Section 230.10(a)(2) of the Guidelines." *Id.* at 12. Internal guidance to the Corps notes that "the determination of what constitutes an unreasonable expense should generally consider whether the projected cost is substantially greater than the costs normally associated with the particular type of project." Memorandum to the Field, "Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements," available at: <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/flexible.htm> ("Memo to Field").

n231 Similar to the example of a residential development discussed above, the permit applicants herein obviously would rather locate their mining on top of this attractive resource (e.g., the property is already owned, or presumably cheaper to acquire, contains a high quality rock product, and is located in proximity to existing infrastructure for processing the rock), but -- just as in the housing example -- that does not mean that the essential mining activity requires siting in wetlands. Housing developers presumably would always choose to build on waterfront property, but that does not make the provision of housing a "water-dependent" activity.

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n232 "The regulations do not answer the question whether the applicant, the Corps, EPA, or public commenters have the final word in defining the project purpose." Margaret N. Strand, *Wetlands Deskbook* 133 (2d ed. 1997).

As discussed above regarding NEPA, the Corps identified the purpose of the proposed mining project in the June 2000 Public Notice, and repeated it in the March 2001 Revised Public Notice, as: "Placement of fill related to excavation activities for the purpose of limestone quarrying." AR623A, AR737. The ROD specified that the "basic purpose" was "to extract limestone" and that the "overall project purpose is to provide construction-grade limestone from Miami-Dade County," AR1028 at 8. n233 In their briefs, the Federal Defendants argue that "in this case, the proposed activity is the extraction of particular mineral resources located in particular wetlands. . . . [and that it] would be meaningless to state that this activity could be carried out elsewhere. Thus, the Corps properly did not apply a presumption that practicable alternatives were available." Federal Defendants' Reply, [*242] Docket Entry # 42, at 16. n234 Compare the statement above to the Corps' assessment in another permitting dispute, less than one year after publication of the ROD at issue herein, involving one of the same mining companies, although in different wetlands (on the southwest coast of Florida), that the mining did not need to be located in a special aquatic site to fulfill its basic purpose of "develop[ing] a

source for limerock." (See Plaintiffs' Notice of Filing, Docket Entry # 48 at Exhibit 2, Corps' Statement of Findings regarding Florida Rock permit for mining, dated February 6, 2003). n235 Indeed, the court reviewing that permitting process remarked that "it is undisputed that this mining activity is not inherently water dependent." *National Wildlife Federation v. Norton*, 332 F. Supp. 2d 170, 186 fn13 (D.D.C. 2004) (applicant's objective is the proper focus). Common sense dictates that if mining (in wetlands) is not inherently water dependent in one situation, then it is not inherently water dependent in another. n236 The Corps' own internal directives provide additional illumination as to the concept of "site-specific." "Some projects may be so site-specific (e. [*243] g., erosion control, bridge replacement) that no offsite alternative could be practicable. In such cases the alternatives analysis may appropriately be limited to onsite options only." Memo to Field. Clearly, the replacement of a bridge must take place at the location of the former bridge; in contrast, the mining proposed herein need not occur in this specific wetland site.

n233 "A conservation biology alternative [no additional mining, mandated restoration, etc.] will not achieve the landowners' purpose to provide a limestone product from the Lakebelt area." AR614 at 909.

n234 The Corps' conclusion that this project could not be carried out elsewhere should have placed additional focus on the consideration of on-site alternatives; instead, the ROD is silent as to the consideration of any such alternatives.

n235 Plaintiffs' notice of filing, Docket Entry # 48, filed Oct. 15, 2004, included the underlying agency decision on Florida Rock's application to mine for limestone in Collier, Lee, Hendry, Glades, and Charlotte counties. The statement of purpose was to develop a source for limerock, and the mining was to impact 333 acres of wetlands (some of which was degraded by prior agricultural use). The Corps' decision document, dated February 6, 2003, specifically indicated that the activity did not need to be located in a special aquatic site to fulfill its basic purpose. Annex B of the EIS in the case presently under review contains a contrary determination. AR614 at 124-128.

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n236 "A reasonable, common sense approach . . . is fully consistent with sound environmental protection." RGL 93-2. Memorandum to the Field, "Appropriate Level of Analysis Required for Evaluating Compliance with the Section 404(b)(1) Guidelines Alternatives Requirements," available at <http://www.usace.army.mil/inet/functions/cw/cecwo/reg/flexible.htm>.

2. Water-dependency

"A finding of water dependency is not a prerequisite to issuance of a section 404 permit, but only a factor to consider in the application process. Under this rationale, if the Corps incorrectly determined that [applicant's] fill activity was non-water dependent, reversal of the summary judgment would not be automatic." at 831. *Friends of the Earth, Inc. v. Hintz*, 800 F.2d 822, 835 (9th Cir. 1986) (upholding agency decision that a sorting yard for logs waiting to be exported was "water-dependent" under those specific circumstances, noting that Corps is not "a business consulting firm" required to affirmatively seek out alternatives, but that the Corps had "exhaustively studied" the information before [*245] making its decision). In *Hintz*, the Corps had engaged in a "reasonably thorough examination of the water dependency issue, and reached a rational conclusion." 800 F.2d 822, 831. Contrast that with the present situation, where the ROD was already being drafted before public comments on the EIS were received.

All agencies agreed that log storage is not a water dependent use unless the storage is tied to an exporting facility. The agencies do recognize the need for an inventory of logs immediately adjacent to the ship loading facility and would consider log storage for this purpose as water dependent . . . The applicant's log and lumber export operations require immediate proximity to navigable waters. The project site will serve as a log storage area for these operations. The expansion of the applicant's industrial complex, to include the project site, constitutes a water-dependent use of a special aquatic area.

Id. at 832. The court observed that "storage of logs for domestic use is not water dependent, but efficiency dictates that the storage function not be divided, because logs are not initially segregated between domestic and export. [*246] " Id. at 832 n10. n237

n237 It must be remembered that the CWA is a relatively new law (less than three decades), and decisions interpreting these water-dependency provisions are relatively young in terms of their tested precedential value.

It is undisputed by the parties that the Corps determined that the proposed mining in this case was water-dependent and, consequently, the Corps failed to apply the regulatory presumption to the applicants' proposed mining activity. n238 Because the Court finds that the record evidence compels the opposite conclusion, i.e., that the proposed mining activity does not require siting within wetlands in order to fulfill its basic purpose, i.e. to extract limestone, n239 the Corps was wrong to have ignored the presumption and remand is required. n240

n238 "The activity needs to be located in a special aquatic site to fulfill its basic purpose." AR1028 at 59.

n239 AR1028 at 8.

[*247]

n240 Indeed, the Court addresses this issue in some detail to clarify that an applicant's project purpose cannot be tailored so as to render the alternatives analysis circular, i.e., using a premise (limestone mining must take place on the miners' lands which happen to be wetlands) to prove a conclusion (the project requires siting within the wetlands) that is in turn used to prove the premise. To permit such circular reasoning would eviscerate the regulatory protections such that any activity, no matter how destructive -- and it is difficult to conceive of something more destructive to wetlands than their complete removal by excavating down to 80 feet and leaving a hole in their place -- could be justified on wetlands as long as that is where the applicant owned property.

The regulations require that the Corps begin its analysis of a proposed project with the presumption that the "unnecessary alteration or destruction of [wetlands] should be discouraged as contrary to the public interest." 33 C.F.R. § 320.4(b) (1). This presumption is very strong. See 40 C.F.R. § 230.1(d) [*248] ("The guiding principle should be that degradation or destruction of special sites ["such as filling operations in wetlands"] may represent an irreversible loss of valuable aquatic resources"). To overcome it, an applicant must make three very difficult showings: first, that "the benefits of the proposed alteration outweigh the damage[s]," second, that "the proposed activity is primarily dependent on being located in, or in close proximity to the aquatic environment," and third, that the proposed project cannot be located on any "feasible alternative sites." 33 C.F.R. § 320.4(b)(4). Wetlands can't be permitted to be destroyed simply because it is more convenient than not to do so. See 40 C.F.R. § 230.1(c). Congress and the agency have already determined that "wetlands are vital areas that constitute a productive and valuable public resource," 33 C.F.R. § 320.4(b)(1); see 33 U.S.C. § 1251 (1976). *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982)." n241

n241 Interestingly, Mr. Buttrey had sought (in 1978) to develop an area along the Gulf Coast, which would have affected a bayou that passed near Slidell, Louisiana. 690 F.2d at 1172-73. Objectors claimed that the dredge and fill would destroy natural drainage and increase the risk of flooding. The Court referenced that the relevant regulations suggested that destroying wetlands may increase the chances of local flooding. Id. at 1182. The Corps' denial of the permit, and the Fifth Circuit's approval of the procedures employed by the Corps (including the denial of a hearing for Mr. Buttrey), seem extremely wise in light of the lessons being learned after the devastation caused by Hurricane Katrina in August 2005. See, e.g., "substantial marsh loss . . . potentially further reduces southeastern Louisiana's natural protection from future storms." "USGS Reports New Wetland Loss from Hurricane Katrina in Southeastern Louisiana," September 14, 2005, available at: <http://www.usgs.gov/newsroom/article.asp?ID=997>.

[*249]

3. Practicable alternative sources for rock

To determine whether a practicable alternative exists, the Corps engages in a sequential analysis. First, having determined that this activity is not water-dependent, it is presumed that a practicable alternative exists. Importantly, 40 CFR 230.10(a)(1), does not prohibit the Corps from determining that another wetlands site may be the "practicable alternative" and may even be a less environmentally damaging alternative. n242 "For the purposes of this requirement, practicable alternatives include . . . discharges of dredged or fill material into the waters of the United States or ocean waters." 40 C.F.R. 230.10(a)(1). The burden to rebut the presumption that an environmentally preferable alternative exists falls on the applicant. *Buttrey v. United States*, 690 F.2d 1170, 1180 (5th Cir. 1982).

n242 The Corps conclusory statement is unavailing. "By nature of the project, it involves work in wetlands, and no practicable alternative to working in wetlands exists." AR614 at 103.

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The Court's inquiry into whether the Corps sufficiently considered practicable alternatives must be "searching and careful," but the standard of review is "narrow." To uphold the agency's decision the court must satisfy itself that the agency made "a reasoned evaluation of the relevant factors." *Marsh v. Oregon Natural Resources Council*, 490 U.S. 360, 376, 378 (1989). From the record before the Court, it appears that the Corps too quickly dismissed the alternative of "no mining" in the Lake Belt, as discussed in the Court's analysis of Plaintiffs' NEPA claims, above, which suggests that the Corps' analysis of practicable alternatives similarly was lacking. The Court cannot conclude that the Corps was correct when it decided that the mining industry applicants had carried their burden of proving the lack of alternatives. In rejecting an alternative that would have limited mining in the Lake Belt area in favor of mining in other Florida locations or other states or other countries, the Corps stated: "Denying future permitting would avoid impact to generally low quality Everglades habitat but would result in the loss of high quality and regionally important habitat elsewhere. [*251] " AR1028 at 38.243 However, the existence of allegedly "high quality and regionally important habitat" superior to the Lake Belt wetlands was never established in this record.

n243 "The only way to avoid this risk to the Everglades ecosystem is to relocate the mining to other locations. . . . other locations would result in impacts to other ecosystems, and probably to a greater extent than in the Everglades since the area of mining would have to be larger and the other ecosystems are smaller than even the remaining extent of the Everglades." AR1028 at 83-84.

The CWA's requirements regarding the analysis of alternatives to the proposed mining are comparable to the Corps' analogous obligations under NEPA. "The analysis of alternatives required for NEPA environmental documents . . . will in most cases provide the information for the evaluation of alternatives under the [404(b)(1)] Guidelines." 40 C.F.R. 230.10(a)(4). "The only fundamental difference between alternatives analyses for NEPA [*252] and the Guidelines is that under the CWA, alternatives outside of the applicant's control may be considered." 40 C.F.R. 230.10(a)(2). n244

n244 The Corps is governed simultaneously by its own CWA regulations, e.g., 33 C.F.R. 320.4(a)(2)(ii) (must consider the "practicability of using reasonable alternative locations and methods"), those promulgated by EPA, e.g., 40 C.F.R. 230.10 (no discharge to be permitted if an environmentally preferable "practicable alternative" exists), and the NEPA regulations, 40 C.F.R. 6.203(b) (an EIS must include a balanced description of alternatives, including the "alternative of no action," and explain why certain alternatives were eliminated from detailed study), 40 C.F.R. 1502.14(a) (EIS shall "rigorously explore and objectively evaluate all reasonable alternatives"). Despite these varying sources of direction regarding analysis of alternatives, "[the Corps] should not conduct or document separate alternatives analyses for NEPA and the Guidelines." SOP. Although the Court has elected to segregate its analysis under the two statutes, it incorporates herein the discussion, supra, of the Corps' deficiencies with respect to NEPA.

[*253]

The entire basis for the Corps' analysis of practicable alternatives is a single report prepared by Paul Larsen and submitted in December 1999 on behalf of the mining industry. The report, which was included as Appendix I of the EIS, AR614 at 923, was "based . . . on interviews with the individuals who secured environmental permits for each mine [i.e., miners or their consultants]." AR582. The report is quoted extensively, below, to illustrate the nature of its content -- including the frequent unsupported use of "therefore" -- and to demonstrate why the Corps should not have relied upon this report without independent verification.

Like the Lake Belt, other locations in Florida are also faced with approximately 50 years of reserves at present levels of production. Increasing production at these locations would shorten the span of time Florida has a reliable rock supply and due to the law of supply and demand, would certainly substantially complicate the logistics and increase the cost of rock (and taxes) for building public infrastructure. Local, State and Federal regulatory approvals for expanded operations are **uncertain** in the alternate Florida locations. In addition, [*254] the road and rail network may not be adequate and government approvals for additional highway traffic **may not** be granted. Because of winter weather, rock from Nova Scotia is only produced 7 months per year. There would be problems in using Nova Scotia rock in Florida where it is needed on a 12 month basis. . . . Rock **from the Bahamas has chloride levels that preclude its use for certain** purposes. Georgia producers face serious air quality and other environmental problems. Significant expansion of those mines may not be possible for many reasons including difficulty in getting air quality permits for these dry' quarries. . . . Rock from foreign sources would have to be delivered by ship. This requires port facilities that are not available at present. At present, minor amounts of rock are delivered to the Port of Tampa. But large scale deliveries by deep draft bulk cargo carriers would require new dedicated ship unloading and storage facilities. . . . The use of foreign rock would create extreme logistical problems and significant increases in cost." and "Analysis of an extreme case shows that alternatives could cost taxpayers up to \$ 25 billion more than Lake Belt rock" [*255] "Essentially all of these quarries are in valuable habitat areas, both wetlands and uplands. The quality of the rock at these alternate locations may be marginal or unsuitable for many uses." "The Lake Belt yields 125,000 tons per acre. On a gross basis, alternate locations yield much less. In addition, alternate locations have higher portions of clays and other deleterious materials which must be washed out before the material can be sold as aggregate. The net yield per acre at alternate locations can be from 10 to 40 percent of Lake Belt yields. Therefore, Lake Belt mining disturbs less land and habitat per ton. For example, if the alternate site yielded 30,000 tons/acre, then 4 times as much land, and habitat, would have to be disturbed as in the Lake Belt to produce the same amount of rock. Therefore, because of the high yield per acre, the Lake Belt Plan reduces overall effects on habitat compared to alternate locations in Florida." "There are huge potential reserves of rock in Dade County. Unfortunately, they are located under the urban areas, under the Water Conservation Areas and under Everglades National Park. Wetland restrictions limit their availability for mining. . . [*256] . Just as wetland issues limit the availability of rock in the Lake Belt, they also limit the availability of rock in many potential alternate locations. The yield of rock at these alternate wetland locations is significantly less than in the Lake Belt. Therefore, more wetlands would need to be disturbed at these alternate locations than in the Lake Belt." "In most cases, without the Lake Belt, quality rock for concrete and asphalt would need to be imported from great distances at great cost, thus substantially increasing the cost and greatly increasing the logistical difficulty associated with providing the materials for public infrastructure." "Mining in the Lake Belt will occur over the course of 50 years and at the rate of approximately 300 acres per year. In round numbers, the resulting 15,000 acres of mining will occur in 6,000 acres already permitted and on 9,000 acres which are the subject of the EIS. The impact on Lake Belt wetlands is therefore gradual and, for example, is very dissimilar from the effects of a road, or shopping center, or subdivision where all the impacts would occur in a matter of 2 or 3 years. Therefore, if practicable technological alternatives to Lake [*257] Belt rock become available, they will be implemented by the market. New technologies could include the use of byproduct materials, efficient large scale recycling, and changes in transportation infrastructure and building materials. Such technology is presently unknown. At this time, we know of no practicable alternatives to Lake Belt rock, and none have been suggested. However, if presently unknown but practicable alternatives became available during the life of the Lake Belt, they would be self executing."

AR 582 (emphasis added). The miners also had claimed that "essentially all remaining vacant lands in Dade County are wetlands. . . . If mining is to continue in Dade County's hard rock area, it must take place in wetlands. There is no practicable alternative to provide the State's need for rock for transportation, construction and environmental purposes." AR19 at 12. The map included with the same document does not appear to support the miners' statement. AR19 at 22-23 (hard rock is found all the way to the east coast of South Florida, and it is safe to assume that there are vacant parcels of land in non-Lake Belt locations in Miami-Dade County). n245

n245 Presumably non-wetlands, i.e., uplands, are more expensive to acquire than wetlands, which of course would affect the mining industry's consideration of such property as a practicable alternative. And, of course, local land use regulations restrict the areas in which limestone can be mined.

[*258]

The record includes information that appears to contradict Larsen's report and conclusions, as well as criticisms of the bias exhibited therein. n246 For example,

Although not exhaustive, below is a list of websites that suggest both cement and aggregate are being brought into Florida ports. Ostensibly, these alternate sources are competing with Dade County stone and cement, and therefore should be looked at in the alternatives analysis and economic analysis in order to help determine what amount of mining crosses over from within the public interest, to excess wetland destruction that can be prevented while still being able to supply cement and aggregate from alternate sources outside of the Lake Belt to the rest of FL [listing Tampa, Palm Beach, Jacksonville ports].

AR558 (March 1998). Also see the following

It has to be proven that Dade County stone is the only stone economically available region wide. Other Florida, as well as Georgia, Alabama, Bahaman and Yucatan sources need to be identified. After alternate sources of stone are identified, cost comparisons between the alternate sources and Dade County stone must be made, after taking into account the [*259] full cost of Dade County stone including mitigation and maintenance costs. If other viable sources of stone are available, and these sources have less environmental impact, then permits should not be issued to destroy wetlands in the Lake Belt. This could mean reducing mining output and limiting limerock distribution to the 4 county area (Dade, Broward, Monroe, and Palm Beach).

AR549/FAR123 (March 1998).

n246 See discussion, above, regarding the Corps' balancing of the private and public interests and the effect of the mining representatives' advocacy.

The Corps concluded its very minimal analysis of alternatives with the following statement. "The proposed 10-year mining footprint is the least damaging to the aquatic ecosystem in that it is much smaller than the 50-year total plan (which itself minimizes impact to wetlands compared to other alternatives described in the fifty year analysis) and is generally in the poorer quality wetland areas." AR1028 at 36-40, 55. "Conclusory remarks . . . do not equip [*260] a decisionmaker to make an informed decision about alternative courses of action or a court to review the Secretary's reasoning." NRDC v. Hodel, 865 F.2d 288 at 298 (D.C. Cir. 1988) (Judge Ruth Bader Ginsburg) (NEPA case). The Corps's own 148 "News Release" (Release no. 0210, released April 11, 2002) is revealing:

Wetland loss might be avoided if mining were relocated to areas outside of the Lake Belt (assuming the wetlands were perpetually protected from all other development or uses detrimental to wetland values).

However, most of those areas also have regionally or locally important environmental and habitat values. Additionally, because the rock deposits are thinner in those areas, greater acreages would have to be mined for corresponding volumes of rock. The subsurface geology in the Lake Belt area supports the mining industry infrastructure (railroads and heavy construction equipment). If the mining were relocated to other areas, the mining costs and subsequent limestone cost (to the public) could go up.

AR1144. This language reveals that the Corps made several assumptions, and none are adequately explained in the ROD or elsewhere in the administrative [*261] record. For example, the Corps apparently assumed that most, but apparently not all, other areas have environmental issues, and that the acquisition of additional property to mine in other areas could be more costly or could result in miners passing on additional costs to the public. The News Release also reports:

If the rock were mined from other State mines or from sources outside the State, there would be considerable cost to relocate the rail network, aggregate and cement plants, and trucking infrastructure that currently distributes the rock products from the Lake Belt. Such a move would also negatively impact the Miami-Dade County and Florida State economies. In addition, other sites also have high quality and regionally important habitat.

AR 1144 at 9, AR1028 at 38-39.

The Corps earlier had announced that the analysis of alternatives was its responsibility, AR256, but then did little to guarantee that the analysis was done properly. n247 A senior Corps staff member noted in October 1999, after receipt of Larsen's draft report, that the Corps was not interested in funding an "independent analysis" and agreed to "let" DEP Bureau of Land Reclamation look over Larsen's [*262] analysis of alternative sites. AR587. n248

n247 The Corps responded to objections received from one of the environmental advocacy organizations as follows:

We have not prepared a formal cost benefit analysis of alternate sources of rock but the Final PEIS includes a description of those sources. This reports that 34 percent of the total quantity of rock used in Florida comes from the Lake Belt, 7 percent from other States and foreign sources, and the balance [59%] from mines elsewhere in Florida. . . . In addition, from 2.1 to 3.9 acres of land at the alternate locations is needed to produce the same quantity of rock as 1 acre in the Lake Belt. . . . An elaborate cost-benefit analysis would add details but probably not contribute much additional information for the decision-maker. . . . Our current position is that the permits, if issued, will be conditioned for periodic reviews that would stop mining until additional compensatory mitigation sites are identified and added to the permits." "We value the Everglades ecosystem very highly, however our permit decisions must also weigh the rights the property owners have to use their property, the public need for material to construct houses, roads, schools, and other infrastructure, and potential ecological and economic impacts of alternatives. Decisions by the State of Florida, by Miami-Dade County and by other agencies contributed to the original decision by the landowners to locate their mining in this area. The Florida State Legislature established in 1992 the Miami-Dade County Lake Belt Plan Implementation Committee to provide a forum for all agencies, the industry, non-governmental organizations, and concerned citizens to discuss these issues.

AR637.

[*263]

n248 There is no indication that this review took place, at least not prior to publication of the EIS. FAR75.

The administrative record clearly establishes that, indeed, there are other sources for limestone rock. Several of these alternative sources may be practicable and environmentally preferable, but the Corps' lack of serious study leaves this as an unanswered question. If the Corps had applied the rebuttable presumption properly, these alternative locations would have been subjected to further evaluation in order to determine their suitability. Each location was, of course, criticized by the permit applicants herein, who submitted the report analyzing these alternatives. As previously noted, the Corps's reliance 150 on the Larsen report to determine whether practicable alternatives existed is problematic. At one point Larsen fantastically noted that "analysis of an extreme case shows that alternatives could cost taxpayers up to \$ 25 billion more than Lake Belt rock." AR 582. The discussion above, regarding the balancing of factors under NEPA and the improper influence of a permit applicant's [*264] representative, is equally applicable here.

In *Hintz*, 822 F. 2d at 833, the court approved an agency's reliance on a permit applicant's report because the Corps, along with other concerned state and federal resource agencies, had "considered and evaluated" the report, and received a supplemental report addressing concerns raised by the agencies. The court in *Hintz* concluded that "the record reflects that the Corps made the proper analysis and weighed the correct factors in making its determination that no feasible alternatives existed. *Hintz* 800 F.2d 822, 835-36 (9th Cir. 1986) ("The Corps is not a business consulting firm. . . . Certainly, we would not condone blind acceptance by the Corps of [an applicant's] study of alternative sites. But the record does not show . . . that the Corps uncritically accepted [the applicant's] assertions. The Corps justifiably and legally relied primarily upon the study prepared by [the applicant], and its review of that study satisfied regulatory requirements. Further, the Corps sought and obtained the expert views of the resource agencies involved.").

The Defendants rely heavily upon *Fund for Animals, Inc. v. Rice*, 85 F.3d 535 (11th Cir. 1996), [*265] but the case is distinguishable in several respects. In that opinion, the Eleventh Circuit addressed the argument that the Corps had ignored alternative sites for a public landfill, i.e., not a for-profit private enterprise such as rockmining, that would have had a less negative impact on wetlands. *Id.* at 542-543. The no-action alternative was rejected because Sarasota County's landfill was projected to reach capacity by 1999. n249 The estimates as to when the miners might run out of limestone is not analogous, nor is there a clear indication in the record that the Corps considered a specific date by which limestone resources available to Miami-Dade County would expire -- perhaps because it would be impossible to estimate such a date since limestone reportedly is available from other sources. In the *Fund for Animals* case, Sarasota County had analyzed several alternative sites in preparing its application for the Corps permit. The court noted that the Corps is not bound by an applicant's ranking system" and that the Corps "conducts its own independent evaluation . . . [and] balancing of the applicant's needs and environmental concerns." n250

n249 "There is no substantial question as to whether Sarasota County needs a new landfill, because the County's current landfill must close in 1999." *Id.* at 544. (The Court rejected an argument that a landfill in another county might be used as a practical alternative, noting that the indicated landfill apparently lacked sufficient capacity to handle the amount of anticipated waste.)

[*266]

n250 Sarasota County previously had ranked four sites for the landfill, and the one chosen received the score indicating it was least well suited for a landfill (i.e., it received the lowest score). The court determined that the Corps had properly performed its analysis following the sequencing preference described in **CWA** regulations and discussed above, i.e., first attempt to avoid impacts altogether, then minimize those unavoidable impacts, and require compensation for the minimized unavoidable impacts. 33 C.F.R. 320.4(r), 40 C.F.R. 230.10. *Id.* at 543. First, none of the four sites would avoid all impacts on wetlands, nor had plaintiffs identified a suitable parcel of contiguous uplands in Sarasota County that would have triggered the 230.10(a)(3) presumption. As the Eleventh Circuit remarked, "such a site would have been entitled to a presumption that it was a practical alternative." *Id.* at 543. Thus, although the landfill was not water dependent, the rebuttable presumption was not triggered because there was no "practicable alternative" -- i.e., avoidance was impossible.

[*267]

"The absence of a suitable upland site required the Corps to analyze all suitable alternatives. In this case, each of the alternative sites poses its own environmental problems which led the Corps to determine that it was less suitable for the landfill than then [chosen] tract." After analyzing the four potential sites, the Corps determined that the amount of wetlands to be impacted on each site compared to the total acreage available resulted in a clear winner: the largest site was 6,150 acres, which permitted a substantial buffer around the landfill's required 74 acres of wetlands impact. n251 Having been unable to avoid impacts altogether, the Corps had minimized the impacts by selecting the best site, and then addressed mitigation that could occur directly on the site due to the overall acreage of the selected site. It is difficult to compare the analysis in Fund for Animals with the analysis applied to the miners' applications. Not only was the Corps faced with a public applicant, as compared to the present private applicant, but the necessity of the desired activity (siting a landfill versus siting a private enterprise removing limestone) was not seriously in question. Moreover, [*268] the selected site in Fund for Animals was so evidently superior to the other sites that it sheds no light on the analysis applied to the miners' application at issue herein. The Sarasota County site selected for the landfill already included approximately one-half, i.e., approximately 3,000 acres, of its total size designated as a conservation area that would provide a "continuous unit of potentially suitable Florida Panther habitat and serve as a barrier between the Myakka River ecosystem and further development from the west." Id at 544. The other sites did not offer those extra protections. In contrast, here we not only have limited information about the alternative sites -- since none were discussed in the ROD -- but are left with the Corps's final decision to permit mining very close to the boundary of the Everglades National Park and directly on top of South Florida's sole source of freshwater.

n251 The County initially applied for 120 acres of wetlands impact and reduced its request in response to concerns raised by the EPA.) Further, each of the three rejected alternative sites involved either impacts to headwaters for a stream, wetlands that drained into the Myakka River or another waterway, a nesting site for the Bald Eagle (previously listed as an endangered species), presence of the Florida Sandhill Crane (a state listed species), or was within the Myakka River watershed.

[*269]

As noted above, it is undisputed that the Corps failed to make the required presumption; however, if the record revealed sufficient evidence such that the Court could conclude that the applicants would have overcome the presumption if it had been applied, then a remand might be unnecessary. This record is woefully deficient in terms of the identification and analysis of practicable alternatives and, as such, remand is required. The burden rests on the applicants to rebut the presumption with competent evidence that clearly demonstrates that no practicable alternatives exist, at least none that would be environmentally preferable. See, e.g., 40 C.F.R. 230.10(a)(3) ("unless clearly demonstrated otherwise"). The mining industry applicants have thus far failed to carry that burden - perhaps on remand they will be able to demonstrate conclusively that there are no practicable alternatives for any of the intended mining activity.

The Court must conclude that the Corps made a clear error of judgment in the analysis of practicable alternatives under the CWA due, in part, to the agency's reliance on a study that should have been independently verified. [*270]

4. On-site alternatives to mine rock from this source

Adverse impacts to wetlands must be avoided to the extent that practicable alternatives are available which will result in less adverse impacts. If such impacts cannot be avoided, then the guidelines require that the impacts be minimized, and that compensatory mitigation be required for any adverse impacts that cannot be avoided, or minimized. n252 Mitigation to be accomplished through compensation "may occur on-site or at an off-site location." 33 C.F.R. 320.4(r)(1). The question of on-site alternatives such as re-mining in existing areas or shifting all mining away from the more pristine western wetlands, was not addressed in the EIS or the ROD. Nor were alternative technologies examined, apparently because the mining companies reported that "it is not economically viable to use new mining technologies in old lakes because of the expenses associated with reblasting and dredging." AR423 at 40-41. Based on this record, the Court cannot find that the Corps complied with its CWA duties as to the consideration of on-site mitigation.

n252 Pursuant to an agreement between the Corps and EPA, the CWA guidelines are interpreted as requiring a progressive analysis, from avoidance of impacts to minimization and then to compensation. Memorandum of Agreement Between the Department of the Army and the Environmental Protection Agency, effective Febru-

ary 7, 1990), *reprinted in* Margaret N. Strand, *Wetlands Deskbook* (2d ed. 1997). Prior to this MOA, the agencies interpreted the role of compensatory mitigation differently; for example, the Corps occasionally considered an applicant's mitigation plan as part of the Corps' initial determination of whether environmentally preferable alternatives were available. If the mitigation compensated entirely for the harm, the Corps immediately concluded its alternatives analysis, since the lack of a net adverse impact eliminated the need to search for other alternatives to the project. Johnson, Stephen M, *Avoid, Minimize, Mitigate: The Continuing Constitutionality of Wetlands Mitigation after Dolan v. City of Tigard*, 6 *Fordham Env'tl. Law J.* 689, 694-95 (1995).

[*271]

Having previously determined, as discussed above, that remand is required because of NEPA-related deficiencies in the EIS, and having now determined that remand is required as to the Corps' failure to conduct a proper analysis of the first CWA factor, i.e., the existence of practicable alternatives, the Court will only briefly address the other two CWA-related substantive requirements in an attempt to facilitate the Corps' proceedings upon remand. The Court also has determined that the Corps disobeyed the procedural directives²⁵² of the CWA and its regulations by failing to encourage public participation; thus, remand is necessary on that basis as well.

C. Significant degradation (significantly adverse effects on water supplies, wildlife habitat)

Under the CWA, the Corps must evaluate the probable impact, including cumulative impacts, of the proposed activity on the public interest -- weighing foreseeable benefits against foreseeable detriments using "all factors which may be relevant." 33 C.F.R. 320.4(a)(1). A permit will not be granted if contrary to public interest view. At a minimum, the following factors must be addressed: the "relative extent [*272] of the public and private need for the proposed structure or work, the practicability of using reasonable alternative locations and methods to accomplish the objective of the proposed structure or work and the extent and permanence of the beneficial and/or detrimental effects which the proposed structure or work is likely to have on the public and private uses to which the area is suited." n253 33 C.F.R. 320.4(a)(2). Permits should not issue for activities that will cause or contribute to "significant degradation" of the wetlands at issue. 40 C.F.R. part 230.10(c). Factors contributing to the analysis of whether an activity will cause or contribute to significant degradation include: "significantly adverse effects of the discharge of pollutants on municipal water supplies, . . . wildlife, . . . wildlife habitat . . . , or . . . on recreational, aesthetic, and economic values." 40 C.F.R. 230.10(c)(1), (3), (4).

n253 Additional factors identified in the regulations include "conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people." 33 C.F.R. 320.4(a)(1). The Corps at least listed each of these factors, even though it gave scant analysis to most of them. AR1028 at 76-83.

[*273]

The NEPA analysis, above, dictates the result of this review, and is incorporated herein. The Court concludes that the Corps violated its duties under the CWA by not addressing all relevant factors and by concluding, based upon an inadequate record, that this mining would not be contrary to the public interest.

D. Minimization of potential adverse impacts

Permits may issue for activities if "appropriate and practicable steps have been taken which will minimize potential adverse impacts of the discharge." 40 C.F.R. 230.10(d). Although the Supreme Court has held that NEPA does not require that an EIS contain a complete mitigation plan, *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332, it is unclear whether that holding extends to the CWA and the actual issuance of the mining permits herein. *Fund for Animals, Inc. v. Rice* at 544 (where filling of wetlands cannot be avoided, the appropriate and practicable steps must be taken to minimize the potential adverse impacts of the discharge on wetlands). The Corps can reduce potential adverse impacts associated with a discharge by requiring mitigation n254 as a condition of a permit, [*274] 33 CFR 325.4(a)(3), but must first avoid resource losses to the extent practicable, 33 CFR 320.4(r)(1).

n254 Mitigation is defined as avoiding the impact altogether by not taking a certain action or parts of an action, rectifying the impact by repairing, rehabilitating, or restoring the affected environment and compensating for the impact by replacing or providing substitute resources or environments. 40 C.F.R. 1508.20.

The Court's discussion above regarding the Corps' failure to comply with the procedural safeguards of NEPA as to this issue compels a similar conclusion here, i.e., that the Corps did not comply with the CWA. The Court observes that the ROD offers little supplement to the EIS' minimal analysis, as the majority of the ROD's analysis of "minimization" is simply a repeated discussion of the groundwater seepage study found in Appendix A to the EIS. AR1028 at 41 -- 53 (Section 8, Alternatives). The discussion reports on the various [*275] modeling, all of which can be summarized as simply proving that there is a risk of groundwater seepage from the mining and its remnant quarry pits. The discussion of minimization that is included presumes that mining will occur, which is appropriate for the purposes of minimization analysis, of course, but then fails to offer specific recommendations for minimization. For example, "several new water control structures" proposed by the mining industry are mentioned, AR1028 at 44, but the Corps notes that these structures would "require additional water to be supplied from the regional system" in order to achieve beneficial seepage changes. AR1028 at 45-46. n255 "For north of Tamiami Trail, the miners have described how the seepage could be avoided through addition of structures but these would require additional water from the regional system." AR1028 at 52.

n255 One of the structures proposed by the miners, a structure on the L-31N canal to raise the water level, would be erased by the CERP's proposed filling in of the canal and flooding of the adjacent area, but the CERP project end date is not until 2013. AR1028 at 49.

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The need for additional water from the regional system is a difficult issue for the Corps acting under Section 404 of the Clean Water Act to address since the Clean Water Act reserves water supply aspects to the States. This issue is certainly recognized by the State and must be incorporated by the State in its water supply planning. Both resolution of this issue and the design of seepage avoidance/compensatory actions is best done in conjunction with CERP components related to seepage, which as seen above have complete [sic] dates of 2013 and 2014.

AR1028 at 52. These minimization plans are not nearly as specific as those examined with approval in *Sierra Club v. United States Army Corps of Eng'rs*, 2005 U.S. Dist. Lexis 36385 (D.N.J. 2005) (specific minimization steps included design of an efficient stormwater management system, placement of an impervious cap over the contaminated areas, use of "best management practices," prompt grading of fill to reduce risk of dispersion, etc.). The Corps' discussion of mitigation measures does include reference to specific actions which would minimize unwelcome water inputs in the Lake Belt: removal of barriers [*277] between existing pits, removal of any existing direct canal connections to pits (and maintenance of a 100-foot distance from canals), construction of a berm around the Lake Belt area to prevent direct entry of surface water runoff. AR614 at 82. None of these were implemented in the ROD or permits n256, however, and as such the Corps' treatment of minimization and mitigation was inadequate.

n256 "The 10-year permit allows time to coordinate the construction of seepage management systems with the CERP. There is a risk of contamination to the public wellfield but additional interim restrictions are imposed on the mining and a review is scheduled three years after permit issuance to minimize the potential that the adverse effect will occur." AR1028 at 55.

The Court now turns to the question of whether the Corps complied with the public participation requirements of the CWA.

E. Public participation

Public participation "shall be provided for, encouraged, and assisted" in enforcing the CWA's standards. 33 U.S.C. § 1251 [*278] (e). Although the Court is addressing this as the final aspect of the CWA analysis, the topic is one of great importance. The statute guarantees that the public will have the opportunity to participate in the permitting process, 33 U.S.C. § 1344(a), and that implies that the public will receive information in a manner that is useful and supports meaningful engagement by the public. Unfortunately, the public's ability to participate in an informed way in the process of issuing the permits presently under review was compromised by the Corps' inattention to detail, as noted above in the NEPA analysis, incorporated herein. n257 Plaintiffs have complained about the difficulty in gaining complete and accurate information about this important environmental permitting process, n258 and the Court agrees that clarity and candor seem to have been casualties of the agencies' rushed process. For example, the Corps' explanation, at AR1028 at 5, for some of the differences in the EIS' estimates n259 of acres of impact -- that it is "the result of the long time that this project has undergone review" -- does not address the differences between the expected acres of impact disclosed [*279] to the public and those actually accounted for in the ROD.

n257 As yet another example of the flawed information distributed to the public regarding the extent of the proposed project and its impact on wetlands, there is a significant difference in the reported numbers of acres to be mined by the single company responsible for the largest number of acres of mining, Rinker Materials. According to Rinker, a total of 1,963.4 acres will be mined by Rinker during the ten year permit period. See Affidavit of Rinker President, Exh. 1 to Docket Entry # 34. This amount includes 957.9 acres directly related to Rinker's own permit, # 200002369, and 442.68 acres permitted to be mined by Kendall Property and Investments, Permit # 200002369, which relate to a quarry that Rinker "operates" -- for a total of 1,400.58 acres under the new permits. Id. It thus appears that 562.82 acres were subject to previously existing permits (i.e., the difference between 1,400.58 acres and the reported total 1963.4 acres). The Public Notice (June 2000) issued shortly after the EIS advised that "the Corps is presenting in this public notice the estimated total extent of renewals and expansions" but did not specify how many acres were to be mined by each company, only that a total 14,300 acres would be covered by the renewals and new permits. AR623A. The Revised Public Notice (March 2001) does not contain a similar statement as to the inclusion of acres covered by renewals, and reports only the new 957.9 acres (Rinker) and 442.68 acres (Kendall), a total of 1,400.58. AR737. A person reviewing the Revised Public Notice, which states that it "supercedes the previous public notice," reasonably might conclude -- and would be entitled to reach such conclusion -- that Rinker's total mining impact during the ten year period will be only 1,400.58 acres. However, the ROD (April 2002) reports that the total impacts for Rinker's first ten years of mining will be 1101.1 (FEC quarry), and 323.6 (SLC quarry) = 1,424.7 acres, and 536.7 (Kendall), for a total of 1,961.4 acres, AR1028 at 5, 115 -- a figure which corresponds closely with Rinker's report of 1,963.4 acres to be mined during the ten years, but which is 561 acres (40%) more than the public was advised after the EIS. Thus, the public was -- as to just this one company, the company mining the largest amount (36%) of the total 5,400 acres to be mined, misinformed as to its impact. Similarly, White Rock actually will be mining 941.7 acres, AR1928 at 115, compared to the 735.63 acres announced in the Revised Public Notice, AR737, a 28% increase. [*280]

n258 Plaintiffs submitted comments to the Corps on March 30, 2001, noting the Corps' failure to provide the public with relevant documents and information on pending applications before the close of the comment period, despite a timely request by Sierra Club for such information. "By denying access to site-specific information and refusing to provide sufficient time to consider relevant information and submit meaningful comments, the Corps has reduced the public participation process required under the Clear Water Act to nothing more than a hollow, make-work exercise." AR793B.

n259 Biological Resource Associates (BRA), and Fortin, Leavy, Skiles, Inc. (FLS) had different estimates.

In addition to the factors discussed earlier in the NEPA analysis of public participation, the Court notes that no public hearing was held by the Corps at any time in this ten year administrative process. The level of interest in a public hearing was high, as demonstrated by the number of people (250) who attended each time that the Lake Belt Committee held public meetings. The CWA grants the Corps discretion [*281] to determine whether public hearings are held, and the Corps may decide not to hold a hearing if there is "no valid interest to be served by a hearing." 33 U.S.C. § 1344(a), 33 C.F.R. 327.4(b), *Fund for Animals, Inc. v. Rice*, 85 F.3d 535 (11th Cir. 1996) (no public hearings required); *Hough*

v. Marsh, 557 F. Supp. 74, 80 (D. Mass. 1982) (remanded for failure to consider local requirements, court directed that a public hearing should be conducted). Here, the Corps received several requests for a public hearing, but "concluded that substantive additional information would not be received and that a public hearing would not benefit the decision-making process on this permit application." AR1028 at 113-14.

In light of the fact that there had been no meaningful comment period on, *inter alia*, the terms and special conditions of permits, and the Corps itself had not conducted a single hearing during the ten years spent in consideration of these permits, it was an abuse of discretion to not have conducted at least one hearing. Indeed, the burden of conducting one public hearing seems relatively light when [*282] weighed against the Corps' obligations to the public as to these highly controversial permits, and the Court concludes that the agency abused its discretion in this instance. n260

n260 "The CWA does not state that the Corps itself must hold its own public hearings regardless of how many other hearings have been held on a project." Fund for Animals, Inc. v. Rice, 85 F.3d 535 (11th Cir. 1996). In that case, the Eleventh Circuit noted that the Corps had received voluminous written information and that two public hearings had been conducted by other entities (i.e., the state process), and observed that the objectors had not pointed to any new information that was likely to have been generated by the public hearing. In the present case, the Plaintiffs have not specifically suggested what information would have been presented by Miami-Dade County elected officials, or anyone else who had requested the public hearing on the ROD. Presumably the County and members of the public would have provided comments on those items that had never been disclosed in the EIS and, thus, never subjected to public scrutiny. As noted by the Eleventh Circuit, "[i]f the Corps determines that it has the information necessary to reach a decision and that there is no valid interest to be served by a hearing,' the Corps has the discretion not to hold one." Fund for Animals at 545, citing 33 C.F.R. 327.4(b).

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F. APA

As with the NEPA analysis above, the Court's conclusion that the Corps violated the CWA controls the determination of whether there was a violation of § 706(2) of the APA. Specifically, in addition to all of the findings identified above, the Court holds that the Corps' failure to apply the rebuttable presumption to this non-water-dependent activity resulted in a permitting decision that was "without observance of procedure required by law," 5 U.S.C. § 706(2)(D).

VI. DID THE CORPS' FAILURE TO ENGAGE IN THE FORMAL CONSULTATION PROCESS PRIOR TO ISSUING THE PERMITS VIOLATE THE ESA? (COUNT III)

Plaintiffs allege that the Corps violated the ESA by failing to complete the formal consultation process as to the endangered wood stork n261 and other species (Cape Sable seaside sparrow, snail kite, and American crocodile). Plaintiffs also claim that the Corps' decision to issue the permits for mining violated its duty to use its authority to conserve the above named species, as required by 16 U.S.C. § 1536(a)(1).

n261 The wood stork has been on the endangered list since February 28, 1984. AR568 at 11.

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Analysis of whether there has been a violation of the ESA follows a similar path to the Court's analysis of Plaintiffs' NEPA claims regarding the Corps' preparation of the EIS. "The procedural requirements of the ESA correspond, and overlap with, [sic] the procedural requirements of NEPA." Sierra Club v. Corps, 295 F.3d 1209, 1216 (11th Cir. 2002) (court will not reverse agency action which was consistent with applicable regulations). n262

n262 For example, both statutes require that an agency's assessment of environmental factors be updated in the event that new and relevant information is introduced.

The ESA provides that each agency shall "in consultation with and with the assistance of the Secretary [of the Interior, acting through the FWS], insure that any [agency action] is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat of such species. . . [using] the best scientific [*285] and commercial data available." 16 U.S.C. § 1526(a)(2). The agency's process begins with a determination of whether there may be an endangered/threatened species in the area to be impacted by the proposed activity, i.e., the "action area." If species are present in the action area, then the Corps is required to prepare a Biological Assessment (BA). n263 16 U.S.C. § 1536(c)(1). The action area is defined as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." 50 C.F.R. 402.02(d).

n263 A BA may include, *inter alia*, the results of on-site inspections, the views of recognized experts on the species at issue, a review of the literature, an analysis of the effects of the action on the species and its habitat, and an analysis of alternate actions. 50 C.F.R. 402.12(f). And, "if new information regarding endangered species [becomes] available, or if environmental consequences not already evaluated [come] to light," then the Corps must prepare either a new BA or an SEIS. *Sierra Club v. Corps*, 295 F.3d at 1219-20 (11th Cir. 2002).

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In April 1996 the FWS provided the Corps with a list of protected species which might be in the vicinity of the Lake Belt area, and provided specific details about certain of the species. FAR134. n264

n264 It should be observed that the Court occasionally has relied upon correspondence that was addressed to the Corps, but which the Court has located only in the FWS administrative record. Because it may be that the Court overlooked the item in the Corps' record, the question whether the items were omitted from the Corps' record will not be raised; rather, the Court has determined that the existence of signed copies of memoranda or correspondence addressed to the Corps can be assumed to have been available to the Corps for its timely review.

A woodstork (*Mycteria americana*) rookery has been documented approximately one mile west of the northwest project boundary (off site). Woodstorks have also been documented within the project boundaries. Apple snails, a primary food source for Everglades snail kites (*Rostrhamus* [*287] *sociabilis plumbeus*), have also been documented on site. . . . Additional surveys by the FWS or the project proponent may reveal the presence of other listed species in the vicinity. Formal consultation . . . may be required prior to any habitat alteration associated with this project.

FAR134. The reported presence of the Wood stork was enough to trigger the Corps' duty to prepare a BA, n265 or to get a written concurrence from FWS that the proposed mining activities were "not likely to adversely affect" protected species, 50 C.F.R. 402.13(a), but the Corps did neither for the next two years. n266

n265 There is further evidence that the Corps was aware of the presence of at least one protected species in the Lake Belt area. In June 1996, Everglades Research Group (private consultants) submitted a "Wildlife Study-Final Report" to DERM, noting that "twelve listed species were observed in the [Lake Belt]. . . the [Lake Belt] serves as a critical peripheral wetland for wading bird foraging. . . . Both juvenile and adult Wood storks were observed." FAR132. This report was included in the EIS as Appendix D, see AR614 at 40.

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n266 Instead of preparing a BA or initiating formal consultation with FWS, it appears that the Corps lobbied the FWS to agree to a proposed mitigation ratio that was lower than FWS preferred. A senior Corps staff member made observations about the lack of cooperation that was forthcoming from FWS, while at the same time agreeing with DEP that FWS should be excluded from a March 20, 1997, meeting scheduled to brief EPA regarding the Lake Belt mitigation plans and ratio, since it would be "unwise (and unfair to the rest of us) to have them [FWS] pop up uninformed and express a negative opinion at this briefing." AR436, AR437. Frustration

with FWS apparently lingered, however, and on April 7, 1997, the Corps' District Engineer advised others outside the Corps that "we have done all in our power to get . . . someone from FWS to the [Lake Belt Team] meetings." AR453. On April 8, a senior Corps staff member exclaimed: "I do not know where [FWS and NPS] are coming from," AR455, and shortly thereafter asks FWS to define its precise reservations on the 2.5:1 mitigation ratio but to keep in mind that the mining consortium is "pretty fragile" -- to which FWS responds that it still has concerns about seepage problems, AR464. On May 21, 1997, FWS submits its formal criticisms regarding the EIS to the Corps, and also submits comments jointly with ENP on October 1, 1997. AR512. The Corps perhaps expected FWS to agree, based upon FWS' prior agreements as to earlier permit applications (in 1994, from Rinker Materials, was "not likely to adversely affect" species or habitat, FAR127; Rinker sought to modify that permit, in 1998, and FWS criticized the littoral shelf plans described at that time, and recommended against approval of that permit until a mitigation plan was solidified. FAR127. When Rinker sought to modify another permit in 2000, FWS agreed with the Corps that the modification created no effects that had not been previously considered. FAR38. It is unclear whether FWS ever saw a BA regarding these permits.

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When conducting a BA, it must be determined whether the action at issue "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 by reducing the reproduction, numbers, or distribution of that species" -- if the answer is yes, then species "jeopardy" has been indicated. 50 C.F.R. 402.02. n267 If the BA reveals no potential "jeopardy" to listed species, and the FWS agrees, then the proposed project may proceed. 50 C.F.R. 402.12(k)(1). However, if a BA reveals that the action "may affect listed species or critical habitat" then the agency must initiate "formal consultation" with FWS, 50 C.F.R. 402.14(a) (emphasis added), and FWS must prepare a Biological Opinion (BO), 16 U.S.C. § 1536(b)(3)(A), 50 C.F.R. 402.14(g). n268

n267 If FWS determines that the proposed action will place any protected species in jeopardy, FWS must suggest reasonable and prudent alternatives to the proposed activity. 16 U.S.C. § 1536(b)(3)(A), 50 C.F.R. 402.14(h).

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n268 For example, on February 19, 1999, the FWS delivered a BO to the Corps regarding major projects surrounding the Lake Belt area (the Modified Water Deliveries to Everglades National Park project, Experimental Water Deliveries Program, and the C-111 project, hereinafter collectively referred to as "Mod Waters"), specifically noting alternatives that related to protecting the Cape Sable seaside sparrow. AR1162. Although the Industry Defendants have noted the existence of the BO as to the C&SF Project, see Reply brief, Docket Entry # 44, p. 22 fn18 (citing AR1153), apparently to suggest that FWS already had performed the legally required analysis as to the general geographic area, the Court will not infer that the C&SF BO, originally submitted in 1998 and finalized in March 1999, nor the Mod Waters BO which was finalized in February 1999, answers the questions presented by the permits at issue -- particularly when FWS has not even argued such a point.

In April 1998 the Corps requested n269 and received written concurrence from FWS, dated May 19, 1998, that the proposed mining activities [*291] "will not adversely affect" Federally listed species. AR568. The Corps had not prepared a BA at the time (nor did it ever prepare one) and, thus, no BA had been reviewed by FWS before it gave its approval; instead, it appears that the Corps sought to obtain FWS' written concurrence in order to end the consultation process quickly.

n269 As noted by the Plaintiffs, AR1336 at 2375, the Corps' letter (reportedly dated April 14, 1998) requesting the concurrence was not produced.

The May 1998 letter from FWS that provides the concurrence specifically states that the letter itself "does not constitute a Biological Opinion" according to the ESA, although it did "fulfill the requirements of ESA, and no further ac-

tion is required [unless modifications are made to the project or additional information involving potential impacts to listed species becomes available]." AR568. FWS noted that an endangered wood stork nesting colony had been identified within one mile of the Lake Belt in 1989 and that the colony "may utilize [*292] the Lakebelt area as a feeding and/or roosting area." AR568. The Habitat Management Guidelines provided to the Corps along with the concurrence letter state that wood storks "are especially sensitive to any manipulation of a wetland site that results in either reduced amounts or changes in the timing of availability of food" and "[a] major reason for the wood stork decline has been the loss and degradation of feeding habitat." The Guidelines also reported that "nesting wood storks do most of their feeding in wetlands between 5 and 40 miles from the colony." AR568 at 4-5. n270

n270 FWS' concurrence would have satisfied the Corps' responsibility under the ESA if there had been a rational basis for FWS' position -- but having determined that an endangered species was in the area, a BA should have been done, and the offering of a concurrence without such study was error on FWS' part, as discussed in greater detail below.

Even though FWS specifically stated that its letter was not a BO, and it is clear from the [*293] record that no BA had yet been prepared, the Corps stated in the February 1999 draft

EIS that it had engaged in a "formal" consultation n271 with FWS. AR578 at 100. On May 26, 1999, the regional office of the Department of the Interior complained that the Department was not consulted during the preparation and review of the EIS prior to its public release, and that it disagreed with the Corps' conclusion that the Fish and Wildlife Coordination Act did not apply to the proposed project. AR605 at 24. The Department reminded the Corps that FWS' May 1998 letter recommended several measures to help the recovery of federally listed species, and that "these recommendations [should] be further expanded upon in the Final PEIS by including fish and wildlife enhancement features, including descriptions, conceptual maps and drawings of the recommended features." AR605 at 20. Despite this reminder from a regional agency official of the need to coordinate with FWS, the Corps did nothing to change its statement and the final EIS still claimed that "formal consultation" was completed, AR614 at 101, and that the Corps had obtained FWS' concurrence that there would be "no effect" on listed species, [*294] AR614 at 83. n272

n271 The FWS Handbook on ESA consultations, available at <http://www.fws.gov/endangered/consultations/s7hndbk/s7hndbk.htm>, describes a "formal consultation" as a process that "begins with a Federal agency's written request and submittal of a complete initiation package" and "concludes with the issuance of a biological opinion and incidental take statement." FWS Handbook, xiv.

n272 The publication of the misstatement in the EIS apparently prompted the Office of the Secretary of the Department of the Interior to send a letter to the Corps dated September 20, 2000, noting that the May 1998 letter had only been provided by FWS as "very general technical assistance on the concept of the Lake Belt Project" and reminding the Corps that it was "required to consult with [FWS] concerning potential effects to federally listed species. . . . [and that after] an analysis of potential effects to listed species conducted by the applicant or the Corps, formal consultation may be necessary." AR712.

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Clearly, the interaction between the Corps and FWS had not constituted a "formal consultation" at the time that the Corps reported in the EIS that it had. While it is correct that the "informal consultation" process legally could have been discontinued after the Corps received FWS' written concurrence, that did not alter the nature of the (minimal) consultation which had occurred until that time and it was a significant error, and misleading to the public, for the Corps to describe it as having been more substantial, i.e., a "formal consultation."

FWS signaled a retraction of its concurrence on August 21, 2000, when it advised the Corps that "we will not begin the consultation process for the proposed project" until receiving further information -- thus indicating the agency's desire to re-initiate consultation. AR671. On March 8, 2001, FWS requested to participate in a site survey and then, on April 30, 2001, reported that it could not concur with the Corps' announcement (Public Notice, June 21, 2000) that the proposed mining activities would have "no effect," or that the activities were "not likely to adversely affect" (as announced by the Corps in the Revised Public Notice, March 1, 2001) [*296] federally listed species. AR824.

At the same time that FWS requested a site survey, consultants hired by the mining industry were preparing a BA. The only BA ever reviewed by either the Corps or FWS was the one prepared by Biological Research Associates (consultants who were retained by attorneys representing the mining permit applicants) n273 on the potential impacts of the ten-year mining plan on the wood stork). n274 The consultants announced that they concurred with the Corps' opinion that the project was not likely to adversely affect the wood stork, because Lake Belt wetlands do not "play a significant role" as foraging grounds or habitat for wood storks. AR821B. They did not deny that wood storks had been found in and near the Lake Belt area, nor that hundreds of acres of foraging habitat would be destroyed and that wood storks have been observed to have to travel as far as twelve miles or more in order to forage for food -- instead, they claimed, not surprisingly, that the mining activities would not adversely affect the species. Their conclusion is based on their claim that "over 90% of the resources that will be impacted are not high quality wood stork foraging habitat. [*297] " AR821B at 8, 11. Not only is this statement patently absurd -- for the acknowledged destruction of several hundred acres of wetlands foraging habitat clearly presents an "adverse" impact on a species which is known to be "especially sensitive to any manipulation of a wetland site that results in . . . reduced amounts . . . of food," but a closer examination of their derivation of the 90% figure reveals a significant flaw in their reasoning. That flawed reasoning infects the FWS' reliance on the BA and the Corps' reliance on both the BA and FWS' related opinion, and, consequently, renders a fatal blow to the ROD. AR1028 at 79.

n273 The Court has found no precedent that forbids the preparation of the BA by an applicant's agent, but cautions that this does not seem consistent with the language of the statute or the regulations: "agency shall conduct" a BA, 16 U.S.C. § 1536(c)(1); BA should be "prepared under the direction of [agency]," 50 C.F.R. 402.02; any person may prepare BA "under supervision of [agency] and in cooperation with [FWS]," 50 C.F.R. 402.12(b) -- particularly where, as in the instant case, it appears that the BA was prepared independently of FWS with the exception of perhaps one joint site visit.

[*298]

n274 Arguably, the Court could interpret the EIS as a proxy for a BA. "When an agency prepares an EIS, it is complying with the BA requirement, provided that one of the environmental impacts discussed is the impact on threatened and endangered species." *Sierra Club v. Corps*, 295 F.3d at 1219 (11th Cir. 2002). However, the lack of detailed analysis regarding the wood stork, and the absence of meaningful analysis as to other protected species potentially affected by the proposed mining, prohibits this particular EIS from satisfying the requirements of a BA. Even if this EIS were to be viewed as a BA, it nevertheless should have resulted in a formal consultation and, because it did not, remand is necessary.

The consultants noted that since only 499.8 acres of the 5,400 total acres (i.e., 9.3%) of wetlands to be impacted in the first ten years of mining were the "open canopied wetlands" favored by wood storks as foraging sites, AR821B at 7, then "more than 90%" of the impacted area should be considered as "not high quality wood stork foraging habitat." This "conclusion" fails to [*299] account for the fact that wood storks have been observed in other wetlands -- even those with some melaleuca infestation -- and to have counted only the "open canopied wetlands" misrepresented the extent of habitat destruction. FWS' letter to the Corps in August 2000 noted that the wood stork "is dependent on "wet prairies and other wetlands including those habitats invaded by melaleuca . . . for forage habitat." AR671. The EIS indicates that at least one wood stork was noted in a wetlands area that was 50% -- 75% covered with melaleuca, AR614 at 49, 90. Including these melaleuca-infested areas in a proper calculation of potential habitat destruction reveals that as much as 1,234.3 acres of prairie (both disturbed and undisturbed, all with no more than 75% melaleuca coverage) foraging habitat would be lost -- a total of 23% of the 5,400 acres within the 10-year mining plan. AR1028 at 115. n275 Moreover, the mining industry, and the Corps, used similar logic to justify further destruction of endangered wood stork foraging habitat, by claiming that the majority of the Lake Belt habitat already was compromised by melaleuca and, thus, of little value to the wood stork. AR1028 at 79. "The [*300] Corps is aware of . . . wood stork nests [near the mining area] and the fact that the nesting birds forage in the open canopy areas of the Lake Belt and the nearby Pennsuco wetlands. Without the melaleuca removal required by the plan, and funded by the mitigation fees these open areas would be over-run by vegetation and unavailable to the storks for forage." AR1144 at 15 (Corps' FAQs). See, also, discussion supra regarding Corps' compliance with NEPA. The Court need not (nor should it) become an expert ornithologist to recognize that the only BA in this file revealed that the mining in the Lake Belt area "may affect listed species or critical

habitat" such that the Corps should have initiated "formal consultation" with the FWS, 50 C.F.R. 402.14(a), and FWS should have prepared a full Biological Opinion (BO), 16 U.S.C. § 1536(b)(3)(A), 50 C.F.R. 402.14(g). n276 Unfortunately, the Corps never proposed and FWS never insisted upon the formal consultation required, even after FWS had rescinded (in April 2001) from its statement of concurrence with the Corps' determination of "not likely to adversely affect." [*301] The Corps was in direct violation of the ESA by relying on less than "the best scientific and commercial data available" and violated the regulations by refusing to initiate the "formal consultation" process.

n275 Again, as discussed earlier, the mining industry and its agents have attempted to receive favorable review of their permit applications by referring to degraded environmental conditions to justify continued degradation -- essentially arguing here that since the wood stork already has been pushed out by melaleuca infestation and changes in the hydroperiods of wetlands (events which are caused at least in some part by mining that already has occurred and is ongoing), the values of this degraded habitat to the wood stork are lower and mining should be allowed to continue to occur in this area. Similarly, the Industry Defendants highlight that the number of wood storks using the Tamiami West colony "significantly declined after 2001." Intervening Defendants' brief, Docket Entry # 36 at p. 45. The offered explanation is that rookeries move every year, but it may be simply that the destruction of surrounding habitat has decimated the population. This Court is unable to approve further destruction of wetlands in this area -- potentially important foraging habitat for the endangered wood stork -- until the agencies have done the full investigation required by the ESA. Interestingly, the mining industry has argued, and the Corps has agreed, that the melaleuca-infested character of portions of the Lake Belt wetlands justifies their further degradation -- indeed, destruction -- by mining. AR614 at 383, 420. The majority of this [mining] impact would occur to melaleuca infested wetlands, which would have a positive benefit of removing a potential seed source of this highly invasive exotic species." AR614 at 83. "The 41,000 acres mining area [referencing a longer term mining plan] is virtually all a seriously degraded wetland." AR22 at 5. It seems at least odd that an industry gains permission to engage in further environmental destruction due, in part, to the destruction already attributable at least in part to that industry's prior actions.

[*302]

n276 This conclusion is buttressed by review of the EIS itself, which reported that as many as 53 wood storks were observed in one day, in April 1995, in the Lake Belt area and that, according to 1989 data, a breeding rookery including 125 nesting pairs of wood storks was located only 9 miles west of the Lake Belt area. AR614 at 49. Further support is found in the record: an October 2001 Wading Bird Report prepared by the South Florida Water Management District indicated that 1400 wood stork nests in Everglades National Park in 2001 were located in a single colony (Tamiami West) within a few miles from the Lake Belt project area border. AR944 at 3, 14.

In a marked change of direction, on June 22, 2001, FWS announced that, based upon its review of the consultants' BA on wood storks and its own review of maps of the project area -- and having "conducted aerial reconnaissance" -- the agency "concurs that the proposed project is not likely to adversely affect the wood stork." AR838. n277 Recall that FWS had stated in April 2001 that its reason for not being able to concur with the Corps' previous [*303] or current determinations of "not likely to adversely affect" was because of "the large scope of this project [which already had been reduced to ten years], and the fact that the federally endangered wood stork . . . has been observed foraging in the vicinity." AR824. The regional FWS office also had commented, noting in May 2001 that "the proposed work will have substantial and unacceptable impacts on aquatic resources of national importance if permitted . . . without incorporating our recommendations . . . I strongly encourage a mutual resolution of the identified wetland/wildlife concerns at the field level prior to your decision to issue the permit." AR828. Then, just a few weeks later and without offering a reasonable explanation for its change in perspective, FWS concluded that the loss of foraging habitat over the ten year life of the project would not result in harm to wood storks, and the "likelihood of potential adverse effects to the species are further diminished through the acquisition and enhancement of lands within the Pennsuco mitigation area and the creation of littoral shelves." AR838. n278 It is FWS' responsibility to explain its decision and -- particularly when [*304] changing course -- to do so with a reasoned analysis. See, e.g., *Sierra Club v. Leavitt*, 368 F.3d 1300, 1306 (11th Cir. 2004) (granting power plant permit was arbitrary and capricious when agency failed to explain differing interpretations

of similar terms or to justify decision); *Panhandle Eastern Pipe Line Co. v. F.E.R.C.*, 196 F.3d 1273, 1275 (D.C. Cir. 1999) (remand required when agency fails to explain change in policy regarding pipeline construction).

n277 Several months later, in December 2001, FWS announced that it had decided not to request higher level review of the projects and stated that "all unresolved concerns regarding [protected] species have been adequately addressed" -- despite the agency's continuing questions about the adequacy of the project's mitigation plan. AR948.

n278 The FWS Handbook provides that "[i]n the event the overall effect of the proposed action is beneficial to the listed species, but is also likely to cause some adverse effects, then the proposed action is likely to adversely effect the listed species." Handbook, xv. It is not clear from the record that FWS relied on the mitigation plan in deciding to concur with the Corps' "no adverse effect" decision. However, even if the long-range mitigative restoration, including the heavily-criticized "littoral shelves," included in the Lake Belt mining plan will be beneficial to the wood stork, it is undeniable (from evidence in the agencies' own records) that there will be some adverse effects; thus, the agencies' conclusions to the contrary were erroneous.

[*305]

The agency's change in position is irrational, not supported by the record, and otherwise violates the ESA and its regulations, such that the Corps should not have relied on FWS' new/renewed concurrence. For example, FWS adopts the BA's statements that "wetlands at the project site are used by wood storks," and that there will be a "loss of foraging habitat," but then concludes that this "will not result in harm to wood storks" because the wetlands to be destroyed "are not measurably limiting to this species for foraging due to their close proximity to [a] greater expanse of Everglades and other protected wetlands" AR838. In other words, the wood storks simply can relocate to other areas since the mining will destroy wetlands presently used as the birds' food source. This reveals that, at a minimum, there is an effect on the species and formal consultation should have been initiated by the Corps, 50 C.F.R. 402.14(a). Further, FWS' conclusion that the wood storks readily can go to other "adjacent protected wetlands" is unsupported by the record and/or irrational for at least three reasons. The mining plan itself will have an effect, through groundwater flow [*306] and seepage, on these adjacent wetlands which may affect their use as foraging habitat. n279 The "adjacent wetlands" -- which presumably are located on Everglades National Park property and the Pennsuco mitigation site -- are located several miles from many of the wetland acres slated to be destroyed during the first ten years of mining (even though those mining sites are within the foraging range of wood storks nesting in the protected wetlands) and this distance may negatively impact the birds' successful breeding. n280 And, finally, it is unclear from the record why wood storks would choose to leave otherwise productive foraging sites currently being used and instead travel to "adjacent protected wetlands" -- other than because their preferred foraging sites were being destroyed by mining. If the Court were to follow FWS' reasoning, every project proposed near the Everglades National Park could simply point to the existence of "adjacent protected wetlands" as a refuge for species being driven out by habitat destruction.

n279 "The increased mined area had a direct impact on the groundwater flow and levee seepage [in the Lake Belt area] and its vicinities. Eastward groundwater flow and seepage from WCA3B and the Pennsuco Wetlands . . . significantly increased." AR618 at121 (SFWMD August 21, 2000, reports that Pennsuco would have 13% to 19% shorter hydro-period).

[*307]

n280 There is no explanation in the record as to why this forced shift to another feeding location, i.e., in "adjacent protected wetlands," which is not being used by the wood storks presently foraging in the Lake Belt and presumably would not occur but for the imposition of the mining activities and consequent destruction of wetlands, is not considered to be an adverse effect on the species, or at least an effect which should trigger a formal consultation.

FWS also notes that the 499.8 acres of open-canopied wetlands -- used as wood stork foraging habitat for the majority of observed wood storks, as referenced in the BA - "are at risk of transition to forested wetlands dominated by

melaleuca as a result of hydrological degradation in the area," AR838, implying that even without the mining activities this habitat would be lost. This implication fails to account for successful melaleuca eradication efforts that are outlined in the record and which might be employed in the absence of mining, n281 or the fact that wood storks probably could forage in these wetlands for several years until they became [*308] overly infested with melaleuca. n282 In summary, the Corps should not have relied on FWS' quick change in position, particularly in the absence of a healthy BA and more substantive consultation, because it clearly was not supported by the record before either the Corps or FWS.

n281 Obviously, the complete destruction of the wetlands by mining is not the only method of successfully eradicating melaleuca. (Indeed, the edges of the quarry pits may be subject to melaleuca infestation after the mining has been completed. "Melaleuca will invade those [shelves around the quarry pits] just as it does in any wetland community in southern Florida where water levels can fluctuate." SAR1336 at 2472.)

n282 Recall that wood storks were observed in areas with as much as 50% to 75% melaleuca coverage.

Shortly before the permits were to be issued, the Corps forwarded a copy of the above-mentioned October 2001 South Florida Wading Bird Report, and stated its belief that information in that report, i.e., "that 90% of all [*309] Wood storks in Everglades National Park are located at the Tamiami West colony. . . . located 4.6 miles from the southwestern corner of the Lake Belt study area . . . [within] primary foraging radius [of] at least 12 miles" did not, in the Corps' view, provide additional information that "requires re-initiation of consultation." AR985. The presentation of new information triggers a re-initiation of formal consultation when such information "reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered," or if the action "is subsequently modified in a manner that causes an effect to the listed species or critical habitat that was not considered in the biological opinion." Either the Corps or the FWS may request re-initiation. 50 C.F.R. 402.16. *Sierra Club v. Marsh*, 816 F.2d 1376 (9th Cir. 1987) (Corps was arbitrary and capricious by not re-initiating consultation after it was requested by FWS). Neither agency did so in this case. The Corps relied on a supplemental report prepared by the same private consultants who prepared the BA, which explained that the information [*310] in the Wading Bird Report was all previously available, and that the particular colony identified in that report was "not highly dependent on the lands within the 10-year mining footprint." n283 AR985. Similarly to the Court's conclusion, above, that the Corps' failure to prepare a SEIS presents less of an issue in light of the necessary remand for correction of significant flaws in the original EIS, the Court finds that a decision about the agencies' failure to re-initiate the ESA consultation is less pertinent because of the remand that must be ordered to permit the agencies to remedy the problems in their minimal original consultation.

n283 It is not clear from the record whether either of the agencies attempted to evaluate whether the longer range, i.e., 50-year, mining plan would adversely affect any protected species -- a question which seems somewhat relevant in light of the acknowledged nature of the current permits as "bridging permits" and the Corps' apparent intention to approve the full mining plan in the near future.

[*311]

This Court is refraining, as required, from substituting its own judgment for that of the agency, but based upon the clear evidence of the flawed logic in FWS' opinion, the Court must find that the agency's "written concurrence" conclusion lacks a rational basis and the Corps erred when it chose to rely on that concurrence. At a minimum, the evidence of an "effect" on the wood stork required the initiation of "formal consultation" by the Corps which would have lead to the preparation of a BO by FWS in accord with the ESA and its related regulations. "Agency actions must be reversed as arbitrary and capricious when the agency fails to examine the relevant data and articulate a satisfactory explanation for its action including a rational connection between the facts found and the choice made." *Sierra Club v. Martin*, 168 F.3d 1, 5 (11th Cir. 1999) (quoting *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983)).

The Corps also erred in its general duty to provide accurate information to the public. On at least two occasions (the publication of the EIS in May 2000, and the issuance of the Public Notice in June 2000), the [*312] public was informed that there would be no effects on endangered or threatened species, in addition to being assured that the Corps had engaged in "formal consultation" and that the proposed mining project "was in full compliance with the [ESA]." AR614 at 92. As late as March 2001, when the Corps issued its Revised Public Notice, the public was informed only that the proposed project was "not likely to adversely affect" protected species or their critical habitat. The Corps' "Fre-

quently Asked Questions" document, posted on its website at www.saj.usace.army.mil (dated April 10, 2002), and included in the administrative record, contains the following statement:

The Lake Belt wetlands currently host predominantly exotic, invasive plants (*Melaleuca*); resulting in degraded wildlife habitat. *Melaleuca* eradication and other restoration efforts on lands acquired for mitigation will encourage reestablishment of native plant and animal species and communities. Mining will degrade some wetlands, but the resulting decrease in wildlife habitat is compensated for by increased habitat values in the mitigated areas. Additional ecological benefits are provided from small areas of marsh [*313] that will be created around each completed mine pit.

AR 1144 at 9. n284 The Corps informed the public only that the mining will degrade "some" of the wetlands (when actually thousands of acres of wetlands will be destroyed -- including hundreds of acres that might have been foraging habitat for the wood stork), and reports nothing about the presence of the endangered wood stork in the area.

n284 The Court deliberately has quoted extensively from the Corps' News Release and website information contained in the record. The federal environmental laws embrace the principles of transparency and public involvement in the decision-making process. Thus, those public materials that are most accessible, e.g., a news release or information stored on a website, may be the primary source of information for the public, and represent the first level of information that may be relied upon by those who would otherwise choose to seek further engagement in the process. If the Corps' public information is not sufficiently revealing of the actual harms to the public that are being considered, or does not accurately portray the alleged benefits of the permitting approval, there is a risk that potential objectors might rely on this flawed information and unnecessarily abandon their efforts to participate in the process -- thereby limiting the benefits that public participation is designed to achieve.

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In summary, the ESA requires that the Corps consult with the FWS about a proposed action's impact on protected species, and the FWS has a duty -- when such impacts are identified -- to arrive at a BO based upon the best scientific data available. *Fund for Animals, Inc. v. Rice*, 85 F.3d 535, 547 (11th Cir. 1996). Here, the Court finds that the Corps was arbitrary and capricious in several ways: not preparing, or supervising the preparation of, a BA; failing to initiate formal consultation with FWS on a number of occasions, particularly after FWS' April 2001 letter; relying on FWS' determination in June 2001 that the wood stork would not be adversely affected by the destruction of thousands of acres of wetlands, particularly in light of the limited analysis in the BA and FWS' failure to prepare a BO; n285 and misrepresenting in several public documents the nature of its consultation with FWS. n286

n285 The present case is easily distinguishable from the appellate court's opinion in *Sierra Club*, 295 F.3d at 1222, in that case none of the wildlife surveys conducted between the dates of the EIS and the issuance of the permits found any of the species that were the subject of the objections (i.e., Florida panther and three protected plant species) in or near the action area; in contrast, in the present case the Corps had uncontroverted evidence that wood storks were frequenting the Lake Belt area. Also, neither the FWS nor its administrative record was before the appellate court in *Sierra Club*, unlike in the present case. *Sierra Club*, at 1222.

[*315]

n286 It is irrelevant, and not even argued by Defendants, whether such misrepresentations were simply mistakes, for the public is entitled to accurate information and the Corps' failure to provide correct statements on important issues -- even after having been notified of the error -- is inexcusable.

To be clear, the Court is not announcing a conclusion that the proposed mining will be so damaging to the wood stork's habitat that it must not be approved; rather, the Court is finding that the Corps (and FWS) should have conducted the formal consultation process required by the ESA and 50 C.F.R. 402.14(a) because it was clear from the record be-

fore the agencies that the proposed mining, at a minimum, "may affect" the wood stork. n287 Based upon the decision documents before the Court, the Court simply is unable to conclude that the Corps or FWS relied on the "best scientific and commercial evidence available" regarding the wood stork, and this raises the Court's concern about whether other species were ignored. Upon remand, the formal consultation process should comply [*316] with all governing regulations and also address any other protected species as required by the ESA.

n287 The fault for this situation lies primarily with the Corps, for it must request the formal consultation -- FWS cannot force an agency to engage therein. FWS Handbook, 2-10.

VII. DID FWS' DECISION TO CONCUR IN THE CORPS' CONCLUSIONS REGARDING PROTECTED SPECIES COMPLY WITH THE APA 706(2)? (COUNT IV)

Plaintiffs claim that the FWS failed to discharge its duties in at least four ways: FWS should not have concurred with the Corps' decision that there would be no adverse effect upon any species, FWS should have insisted on formal consultation as to the wood stork, FWS should have pushed for a re-initiation of informal consultation after receiving the October 2001 report on the presence of wood storks in the area, and FWS should have pushed for at least informal consultation on the Cape Sable seaside sparrow. The Court must determine whether, consistent with the standards of the APA, *Bennett v. Spear*, 520 U.S. 154 (1997), [*317] FWS properly performed its duties. As long as there is a rational connection between the FWS decisions and the record facts, the Court will not find a violation. The Court's duty is "to ensure that the agency took a hard look' at the environmental consequences of the proposed action." 295 F.3d at 1216 (citing *North Buckhead Civic Ass'n v. Skinner*, 903 F.2d 1533, 1541 (11th Cir. 1990)).

As described in the preceding section, FWS should engage in formal consultation whenever a BA reveals that a protected species "may" be affected, 50 C.F.R. 402.14(a). FWS must review the available data and evidence, evaluate the status of the species and the potential effects of the agency action, and formulate a Biological Opinion (BO), which states whether the action and its cumulative effects n288 are likely to jeopardize the continued existence of the species. *Id.* 295 F.3d at 1213-14; 16 U.S.C. § 1536(b)(3)(A), 50 C.F.R. 402.14(g). When FWS reviewed the limited BA submitted by the permit applicants' consultant, it should have triggered the agency to push for formal consultation [*318] with the Corps and, subsequently, to prepare a BO that complied with the agency's own regulations. It did not, and therefore FWS' actions were arbitrary and capricious. *Sierra Club v. Johnson*, 2006 U.S. App. LEXIS 1380 (11th Cir. Jan. 20, 2006) (EPA was arbitrary and capricious when it failed to comply with unambiguous regulatory requirement); *Sierra Club v. Martin*, 168 F.3d 1 (11th Cir. 1999) (agency decision not entitled to deference since decision violated National Forest Management Act and regulations).

n288 According to the Handbook, cumulative effects are those effects of future State or private activities not involving Federal activities, that are reasonably certain to occur within the action area [that is the subject of the consultation]. . . . This definition . . . should not be confused with the broader use of this term in [NEPA]." Handbook, xiii.

The FWS' failings were compounded by the Corps' non-compliance, resulting in agency decisions in which there is no confidence [*319] -- remand for the "hard look" required by *Marsh v. Oregon Nat'l Resources Council*, 490 U.S. 360 (1989), is the only conclusion that can be supported upon a review of these administrative records. In the final analysis, the Court finds that the record does not reveal a rational basis for the FWS' decision in May 1998 to concur in the Corps' conclusion that the mining activity "is not likely to adversely affect the wood stork," AR838; nor was there a satisfactory explanation for the change in FWS' position between April 2001 and June 2001. Remand to FWS is necessary, to permit the agency to consult formally with the Corps, and to develop a BO that addresses all of the relevant factors as to all of the pertinent species.

CONCLUSION

In finding deficiencies in the agency procedures followed up to and including the issuance of the ROD in April 2002, the Court is mindful of the events of subsequent years, as reported by the parties. Mining has occurred with its attendant capital expenditures and profits. Mitigation fees have been collected. Additional studies have been conducted.

Most importantly, wetlands have been permanently destroyed. Regardless, however, [*320] of whether new studies may soon indicate that the Aquifer is not being harmed by the mining activities, or that the groundwater seepage effects can be minimized, or even if a more probing analysis reveals that there truly are no practicable and environmentally preferable alternatives to mining in this precious resource, the Court's conclusion would be unchanged. Based upon the record presented by these two federal agencies, they failed to carry out their duty to protect the federal wetlands and protected species -- placed in their care by Congress -- from private exploitation to the detriment of the public interest. The law is clear that statutory and regulatory duties cannot be ignored. In this case, the consequences of the agencies' disregard for their own regulations may be significant, harmful, irreversible effects.

The Corps' and FWS' decisions apparently were overly influenced by factors that are not as important as the protection of the natural environment. For example, the Corps gave too much weight to the pressure from the state legislature not to lose a mitigation funding mechanism. They also were swayed by the momentum of decades of mining having taken place in the area [*321] -- despite the obvious destruction of wetlands that it had caused, as well as the menacing threat of takings litigation being raised very effectively by the permit applicants. There are a multitude of defects evidenced in the issuance of these permits. Some of the problems may be classified as small or insignificant, but some are vitally important, such as the question of groundwater seepage and potential contamination of the Aquifer. In total, the Court sees a maze of human failures in the issuance of these permits and the process that lead to this result. Even if one or two of the defects were not enough on their own to require remand of this matter, the cumulative effect of these irregularities makes it clear that further environmental analysis should have been conducted and a remand is necessary. The Court cannot ignore the dangers presented by this case. The Corps' apparent disregard for those seeking answers to questions -- including the Corps' failure to grant, or even to respond timely, to the request for a public hearing submitted by the Miami-Dade County Manager on behalf of the County Commission -- is another item which, in connection with the maze of irregularities referred [*322] to, is additional impetus for my conclusion that the permits should not have been issued on this record.

Not the least of the problems is the destruction of the wetlands. Wetlands play an important role, not only in the areas in which they lie, but also to the entire Everglades and South Florida ecosystem. As the Corps' own regulations state, wetlands are a "productive and valuable public resource, the unnecessary alteration or destruction of which should be discouraged." 33 C.F.R. 320.4(b)(1). The absence of the wetlands already eliminated by the limestone mining will prove very harmful to the Everglades when, e.g., the seepage now occurring continues to increase with additional mining. "From a national perspective, the degradation or destruction of special aquatic sites . . . is considered to be among the most severe environmental impacts." 40 C.F.R. 230.1(d). n289 The Court has no alternative but to remand this permitting process to the Corps and FWS so that they may make better decisions, not simply to prepare an even more exhaustive administrative record, but rather to engage in the meaningful analysis required by the APA, NEPA, [*323] CWA, and ESA. n290

n289 The EPA regulations are specifically applicable to the Corps as stated in 33 C.F.R. 320.4(a).

n290 Ironically, if the Corps had decided to deny these permits, the record contains ample evidence to support confirmation of such a decision.

The Court has not yet determined an appropriate remedy in this case. For example, whether all mining being conducted pursuant to these "bridging permits" should cease while the Corps and FWS are reviewing these issues on remand, or just that portion of mining that is attributable to the new permits. The parties shall brief this issue for the Court, i.e., the nature of the injunction, if any, which should issue, and the Court will hold a hearing on the question of remedies after review of the parties' briefs. The briefs shall be submitted no later than April 19, 2006. All response briefs shall be filed no later than April 26, and a hearing will be held at 11:00 a.m. on May 10, 2006.

The Court cannot resist these final observations. [*324] The Corps was, and I am, faced with a most difficult decision: to balance the rights and interests of these particular mining companies with the rights and welfare of the public. In the last analysis, the Court finds that the record in this case compels the conclusion that the permits should not have been issued. Not only have I, and the Corps should have, considered the condition of the wetlands environment at the time that the permits were issued, but I also have looked directly into the future of fifty years of mining in this area -- a point clearly implied by the Corps' "bridging permits" and vague "special conditions" thereon -- and I find that, based upon application of the factors identified by Congress to the record before me, the Corps should not have issued these permits authorizing this mining.

To summarize the above, it is hereby

ORDERED AND ADJUDGED that judgment be entered for Plaintiffs as to Counts I, III, IV, and V. Further, as stated above, the Plaintiffs' motion to dismiss Counts II and VI without prejudice is GRANTED, and the Plaintiffs' motion to strike is DENIED.

This matter is REMANDED to the United States Army Corps of Engineers for further development, consistent [*325] with the above discussion. The Court retains jurisdiction for the purpose of determining an appropriate remedy, and for all other necessary purposes.

DONE AND ORDERED in Chambers in Miami this 22nd day of March 2006.

WILLIAM M. HOEVELER

SENIOR UNITED STATES DISTRICT JUDGE

ATTACHMENT

APPENDIX A

[SEE IMAGE IN ORIGINAL]