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Via Federal Express

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Dear Acting Assistant Administrator Shapiro and Acting Regional Administrator Meiburg:

The Natural Resources Defense Council ("NRDC"), the Sierra Club, and the National Parks Conservation Association ("NPCA") write concerning proposed limestone mining in what mining companies have dubbed the "Lake Belt" area of Miami Dade County ("County"). As EPA knows, the U.S. Army Corps of Engineers ("Corps") is currently considering the re-issuance of ten-year mining permits, authorizing more than 5,400 acres of wetlands loss, that had been set aside by a federal district court in January *and* the issuance of new permits of indefinite duration that would authorize an additional 10,000-12,000 acres of wetlands loss. We strongly support EPA's commitment, stated in Acting Regional Administrator Meiburg's July 1st letter to the Corps' Colonel Paul L. Grosskruger, to work with the Corps as part of the permitting process to ensure these permits, if issued, contain adequately-protective permit conditions and restrictions.

Absent such permit requirements, the environmental harm from the proposed mining will be significant – indeed, transformative – and irreversible. In comments regarding the expanded mining when it was originally proposed a decade ago, the U.S. Department of Interior ("Interior") warned that the wetlands are "the last remnant of the short hydroperiod marshes that are critical to the proper functioning of the Everglades ecosystem" and their conversion to "deep, open-water lakes removes an extensive area of this critical wetland habitat from the system, replacing it with non-natural habitat of little or no value to the Everglades ecosystem." The potential loss of

wetlands values is so enormous that even the Corps has been unable to identify sufficient mitigation. The permanent creation of the 80-foot deep mining lakes will also significantly increase harmful drainage or "seepage" out of the adjacent Everglades National Park ("Park") and other publicly-owned wetlands, undermining restoration initiatives underway such as the multi-billion dollar federal-state Comprehensive Everglades Restoration Plan ("CERP"). Finally, mining is proposed in an area in which the federal court concluded in 2007 that further mining posed an unacceptable public health risk after studies by the U.S. Geological Survey ("USGS") demonstrated that the existing mining exclusion zone intended to prevent contaminants in mining lakes from reaching the County's nearby wellfield is far too small.

To prevent the contamination of drinking water relied on by millions of Floridians and harm to tens of thousands of acres of irreplaceable historic Everglades wetlands habitat, our groups request that EPA ensure, including pursuant to its authority under Section 304(c) of the Clean Water Act ("CWA") as necessary,[1] that: (1) a wetlands mitigation plan is developed for the proposed mining that identifies *up-front* mitigation sites and activities that will fully mitigate for all projected loss of wetlands values, and the permits require the mitigation's completion; (2) in the event that the Corps proposes to mitigate for the seepage problem with an engineering approach, as it has suggested, it complete an Environmental Impact Statement ("EIS") for what will be technically and legally-challenging endeavor with significant environmental impacts in its own right; and (3) the mining exclusion zone is updated based on the results of the USGS studies and supplemental compliance with the National Environmental Policy Act ("NEPA") done. Until the studies are done and their results addressed, EPA must also ensure that, at a minimum, no mining is allowed in areas adjacent to the Park and the "Pennsuco" wetlands to its north and in the specific area identified by the federal court to protect the Northwest Wellfield ("Wellfield"). Based on the information in the Corps' recently-completed Supplemental Environmental Impact Statement ("SEIS"), setting aside such areas from mining for the time being would still allow at least eight years of mining, depending on the rate of mining, which the SEIS makes clear has slowed dramatically in recent years.[2]

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[1] EPA's responsibilities under the CWA and its implementing regulations include vetoing a decision of the Corps to allow the discharge of dredged and fill material into wetlands if it "will have an unacceptable adverse effect on municipal water supplies, shellfish beds and fishery areas (including spawning and breeding areas), wildlife, or recreational areas." *Id*. at 1344(c); *see also* 40 C.F.R. § 231.1(a); *Alliance to Save the Mattaponi, et al. v. United States Army Corps of Engineers, et al.*, 515 F. Supp. 2d 1, 9-10 (D.D.C. 2007) (holding that environmental groups' challenge of EPA's decision not to veto Corps permit was justiciable; EPA had effectively approved a permit, and plaintiffs had alleged the permit would have unacceptable adverse effects). "Unacceptable adverse effect" is defined in the CWA's implementing regulations as an "impact on an aquatic or wetland ecosystem which is likely to result in significant degradation of municipal water supplies (including surface or ground water) or significant loss of or damage to fisheries, shellfishing, or wildlife habitat or recreation areas." *Id.* at § 231.2(e).

[2] In the near tem – until the studies and analyses discussed above are completed and the necessary steps taken to address the results – mining should only occur in those portions of the Lake Belt that are outside the federal court's Wellfield protection zone, *see* Sierra Club, 423 F. Supp. 2d at 1246-47, and those areas set aside for seepage mitigation and avoidance purposes in the SEIS' Alternative 7 **and** pursuant to the south of Miami Canal exclusion area at 5-18 of the SEIS. Based on information in the SEIS, there would appear to be sufficient acreage available in the areas outside these protection zones to provide sufficient limestone resources to meet demand through at least 2016. In short, the SEIS indicated there would be

The Corps has stated that it would issue a Record of Decision ("ROD") on the proposed mining following the June 23rd close of the public comment period on the SEIS.[3] Because this means that public notice of a permit decision could come at any time, we request the immediate opportunity to meet with you and/or your staff to discuss this matter further.[4]

Permitting Process to Date

As EPA is aware, the Corps first proposed issuance of permits like these, *i.e.*, long-term permits to fully mine out the Lake Belt, in 2000. EPA and other agencies objected; the Corps itself ultimately concluded that the proposed mining would have "an irreversible significant impact on the environmental resources of this region." *Sierra Club v. Flowers*, 423 F. Supp. 2d 1273, 1346-47 n.201 (S.D. Fl. 2006) (citing original programmatic environmental impact statement). Rather than proceeding with issuance of the proposed permits, the Corps decided instead, in 2002, to issue an initial round of ten-year permits encompassing approximately 5,400 acres. *Id*. at 1279. Our organizations challenged this decision in federal district court in the southern district of Florida.

The district court issued an order in March 2006, holding that the Corps had violated the CWA, NEPA, and the Endangered Species Act ("ESA"), including by failing adequately to consider whether there were practicable alternatives to limestone mining in wetlands adjacent to the County's most important water supply source and by failing to take a "hard look" at such adverse effects as the "risk of contamination" of the Wellfield and the potential for the mining to harm the Park by "increas[ing] the seepage of needed water from the Park." *Id*. at 1314 (wellfield contamination), 1316-17 (seepage). The Corps immediately initiated development of the SEIS but otherwise did not withdraw, suspend, or modify the permits. In July 2007, following a lengthy evidentiary hearing, at which it heard "compelling evidence that the source of the drinking water for the current population of Miami-Dade County, as well as for future generations," is "at risk" from contamination with benzene – a carcinogen – and microbiological contamination stemming

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approximately 335 million tons of materials left to be mined under the now-vacated 2002 permits (Alternative 2). *See* SEIS at 4-102 (subtracting material mined in 2008 from totals listed). According to the SEIS and assuming an annual demand of approximately 40 million tons per year (significantly higher than the 26-7 million tons mined in 2008), that would provide for mining through 2016, another eight years. Although some of the Alternative 2 footprint falls within the district court's Wellfield protection zone, not mining in this acreage could be more than made up for by mining in more northern and eastern portions of the Lake Belt that do not raise the same water supply and seepage concerns.

[3] The SEIS is available on the Corps' website at www.lakebeltseis.com. On May 8, 2009, the Corps issued a "Public Notice" stating that, following close of the comment period on the SEIS, the agency will issue the ROD to "detail the Corps['] preferred alternative for the proposed action in [the] Lake Belt."

[4] The undersigned organizations have participated extensively in public comment processes related to the proposed mining. We submitted comments on June 23, 2009 and March 6, 2008 in response to Corps public notices on the proposed mining permits, as well as on October 22, 2007 responding to the draft SEIS for mining in the Lake Belt. NRDC and NPCA submitted a letter on September 19, 2008 providing comments on seepage mitigation proposed for this mining, and NRDC wrote a January 16, 2009 letter to Colonel Grosskruger of the Corps regarding mining in the Lake Belt region. We will send these letters to EPA for consideration under separate cover.

from the mining, *Sierra Club v. Strock*, 495 F. Supp. 2d. 1188, 1202 n.52 (S. D. Fl. 2007), the district court issued a supplemental remedies order. This order vacated the permits, but partially stayed the vacatur, pending the Corps' release of its SEIS, in the area outside an expanded mining exclusion zone developed based on the USGS studies. *Id*. at 1214-15, 1246-47. The district court also based its decision to halt mining on its conclusion that the wetlands mitigation that had been proposed for the mining was inadequate to offset the adverse impacts occurring under the permits. *Id.* at 1248-53.

The Corps issued a draft SEIS in August 2007. Even though the district court had directed its order at the Corps' decision to issue permits for the mining plan's initial phase, *i.e.*, 5,000+ acres over ten years, the draft SEIS analyzed no alternatives to the ten year permits (other than their immediate revocation, which it considered the "no action" alternative), not even an alternative with the expanded mining exclusion zone effectuated by the court order. Rather, the Corps focused the draft SEIS on the long-term plan, analyzing five alternative mining footprints ranging from ~12,000 to more than 18,000 acres (including the 5,000+ acres covered by the 2002 permits).[5] In October 2007, the Corps also issued public notices proposing the authorization of expanded Lake Belt mining.

In May 2008, following an appeal by the mining companies, the 11th Circuit Court of Appeals, in a 2-1 ruling, and while not reaching any of the underlying legal issues, held that the lower court had not applied the proper standards of review in its 2006 order. *Sierra Club v. Van Antwerp*, 526 F.3d 1353 (11th Cir. 2008). The appellate panel vacated both this order and the 2007 order and remanded the case back to the district court for reconsideration.[6] On January 30, 2009, the district court issued its order on remand. The court vacated the Corps' decision to issue

[5] While the applications submitted by the mining companies in 2007 only encompassed ~12,000 acres (including the acreage permitted in 2002), the Corps stated that "[i]t is likely that additional mining beyond the mining currently proposed [by the companies] may be proposed at some point in the future and the Corps prefers to execute one [ROD] covering all phases of mining. Therefore, the Corps intends to review all nine project alternatives from the Lake Belt SEIS and their potential impacts as well as mitigation options in evaluating and determining the preferred alternative for the ROD." *See* May 8, 2009 Public Notice at 2.

[6] While finding that the lower court had not "grant[ed] the Corps the level of deference contemplated by the [Administrative Procedure Act]" *id*. at 1359, and "failed to recognize NEPA's limited operation as a procedural, rather than substantive, command to federal agencies," *id*. at 1363, the majority opinion also "commend[ed]" the district court for its "thorough analysis" of the record, 526 F.3d at 1359, and stressed on several occasions that it was "offer[ing] no opinion as to whether the Corps" had actually complied with the CWA or NEPA, *id*. at 1362, 1363. In a separate opinion, Judge Kravitch agreed with the majority that the district court had improperly engaged in a substantive critique of the Corps in certain respects but "believe[d] the district judge correctly determined that the Corps violated the CWA in the permitting process" and noted the "extensive evidence that mining poses a threat of contaminating Miami's drinking water supply with benzene." *Id*. at 1369-70. The majority noted that its "disagreement with Judge Kravitch is exceedingly narrow." *Id.* at 1363 n.8. Notably, the appellate court did not reverse or vacate the district court's ruling that the Corps violated the ESA by failing to adequately address wood stork impacts, and the U. S. Fish and Wildlife Service ("FWS") has now determined (in a 2006 Biological Opinion) that the mining allowed under Alternative 2 will harm wood storks. More generally, the district court's rulings are also extremely comprehensive and provide useful descriptions of the history of the mining in the Lake Belt and the Corps' permitting of it.

the 2002 permits, holding, based on reconsideration of the record and applying the standard of review that had been directed by the 11th Circuit, that the Corps violated the CWA and NEPA by failing to address the mining's "significant adverse effects on municipal water supplies," as well as to adequately examine whether there were practical alternatives to the proposed mining.[7]

Absent Carefully-Developed Safeguards, the Proposed Mining Will Have Unacceptable Adverse Effects

As it did in 2000, EPA has concluded that the expansion of mining in the Lake Belt, as currently proposed, will have "substantial and unacceptable adverse impacts on aquatic resources of national importance." July 1, 2009 letter from Meiburg to Corps (noting the direct adverse effects on "historic Everglades wetlands," in particular the removal of wildlife habitat and water quality buffers); *see also* June 8, 2009 letter from Giattina to Corps at 1; March 27, 2008 letter from Giattina to Corps at 1.[8] We strongly support EPA's determination. As detailed below, the aquatic resources of the Lake Belt area are both highly significant and uniquely vulnerable to adverse impacts from mining of this type and on this scale. Absent great care in permit decision-making and in crafting adequate permit conditions, the proposed mining undoubtedly will have unacceptable adverse effects on both municipal water supplies and wildlife.[9]

Addressing the water supply threat first, the proposed mining will excavate a huge expanse of mining lakes immediately upgradient of and as close as 2,500 feet to the Wellfield. The Wellfield supplies almost half of the County's drinking water from the Biscayne Aquifer (an EPA-designated "sole-source" surficial aquifer). The removal of layers of aquifer material and creation of the 80 foot deep mining lakes allows far easier entry of contaminants to the so-called "preferential flow zone" of the aquifer (between 30 and 40 feet) from which the wells draw the drinking water supply. *See, e.g.*, March 27, 2008 letter from Giattina to Corps at 2-3 (discussing that unmined areas' "natural water holding and filtering ability" provide "protective interface between surface and ground water"); June 8, 2009 letter from Giattina to Corps at 3. The County recognized decades ago the grave threat to the Wellfield from the encroaching mining and

[7] As with the 2006 and 2007 decisions, the mining companies, but not the Corps, have appealed this decision.

[8] Other federal, state, and local agencies have also expressed strong concerns about the proposed mining. *See, e.g.*, SEIS at Appendix G, Attachment B, G-27, 28 (South Florida Water Management District ("SFWMD")); *Id.* at Attachment B, G-32 (County); *Id.* at Attachment C, G-5, 6 (State of Florida Department of Environmental Protection ("DEP")); *Id.* at Attachment C, G-9 (County); *Id.* at Attachment C, G-11 through G-16 (Interior); *Id.* at Attachment C, G-18 (USGS).

[9] It is important to recognize that most mining in the Lake Belt to date, including most of the mining that has been conducted under the 2002 permits, has been concentrated in eastern portions of the approximately 60,000 acre Lake Belt area. The Corps did include certain sites close to the Wellfield in the 2002 permits but put them off-limits from mining for an initial period so that the County could update its Wellfield protections. This means that the most mining to date has been generally downgradient from the Wellfield – and thus poses less of a contamination threat – and has been less proximate to the Park and the largely publicly-owned Pennsuco wetlands – and thus has relatively-less habitat value and impact on seepage. But sites now targeted for mining include sites directly upgradient of the water supply wells (including in areas the Corps set aside in the 2002 permits) and sites immediate adjacent to the Park and Pennsuco.

implemented a mining exclusion zone, which prohibits mining within what is intended to allow no less than a 60 days "travel time" for introduced contaminants to reach the wells.

The problem is that we now know that the existing exclusion zone is too small, meaning it does not provide anywhere close to 60 days travel time. Over the last decade, the USGS – the federal government's hydrogeological experts – has conducted a number of studies to better characterize the Lake Belt area's hydrogeology. The studies have included both state-of-the-art tracer dye studies conducted in collaboration with the County, in order to update Wellfield protection requirements, and geological investigations, several of which were conducted in collaboration with the Corps to assist in designing CERP seepage control projects. The USGS detailed the results of these investigations in four articles published in peer-reviewed journals in 2008.[10]

The USGS studies showed that groundwater travels much faster through the aquifer's preferential flow zone than previously believed, and it is this "conduit flow" that is primarily responsible for the aquifer's extremely high transmissivity. In addition, the conduit flow zones are areally extensive and appear to be connected over large distances of the Lake Belt. The tracer dye study considered the most reliable to date, conducted in 2003, found travel times in the vicinity of the Wellfield to be several times faster than prior estimates.

Based on the new information, the USGS and County have concluded that some portion of the proposed mining (as well as some existing mining) is within 60 days travel time of the wellfield.[11] The USGS considered the studies and their implications so significant that it took the extraordinary step of issuing a public press release in August 2008 captioned "Water Supply at Greater Risk than Expected," which stated that "[s]cientists from [USGS] have concluded that the drinking water from the Miami-Dade Northwest Well Field [] is at risk of contamination due to the close proximity of existing lakes created from limestone mining activities," that "[c]urrent protection zones are not sufficient to protect water supply wells from possible contamination from borrow-lake pits [] associated with nearby rock mining activities," and that "existing and proposed rock mines near the [Wellfield] likely increase the risk of contaminating public drinking water

[10] *See* Renken, R.A., K.J. Cunningham, A.M. Shapiro, R.W. Harvey, M.R. Zygnerski, D.W., Metge, and M.A. Wacker (2008), Pathogen and Chemical Transport in the karst limestone of the Biscayne Aquifer: 1. Revised conceptualization of groundwater flow, Water Resour. Res., 23 Aug. 2008; Shapiro, A. M., R.A. Renken, R.W. Harvey, M.R. Zygnerski, D.W., Metge, and M.A. Wacker (2008), Pathogen and Chemical Transport in the karst limestone of the Biscayne Aquifer: 2. Chemical retention from diffusion and slow advection, Water Resour. Res., 23 Aug. 2008; Harvey, R.W., D.W., Metge, A.M. Shapiro, R.A. Renken, C.L. Osborne, J.N. Ryan, K.J. Cunningham, and L.L. Landkamer (2008), Pathogen and Chemical Transport in the karst limestone of the Biscayne Aquifer: 3. Use of microspheres to estimate the transport potential of Cryptosporidium parvum oocysts, Water Resour. Res., 23 Aug. 2008; Cunningham, K.J., M.C. Sukop, H. Huang, P.F. Alvarez, H.A. Curran, R.A. Renken, J.F. Dixon (2008), Prominence of ichnologically influenced macroporosity in the karst Biscayne aquifer: Stratiform "super-K" zones, Geological Society of America Bulletin.

[11] The County is also concerned that longer, more precautionary travel times may be necessary to safeguard against the pathogens *Cryptosporidium* and *Giardia*, which are long-lived, resistant to conventional treatment, and have been detected in the Lake Belt area. Accordingly, the County is planning expensive upgrades to its water treatment plants to protect against pathogenic contamination due to mining.

sources." August 27, 2008 USGS News Release: Water Supply at Greater Risk Than Expected at 1-2; *see also Strock*, 495 F. Supp. 2d. at 1219-22 and accompanying notes (County witnesses agreeing that existing protective zone is inadequate); *id.* at 1216-17 n.109 (discussing potential for Wellfield to be reclassified as "groundwater under the direct influence" of surface water or "GWUDI").[12]

In effect, the mining in this area of the Lake Belt (most proximate and upgradient of the Wellfield) will, if it proceeds, inexorably convert the County's water supply from one drawn from groundwater protected by the natural filtration and barriers to contamination inherent in an intact limestone to one drawn from what is, for all intents and purposes, a system of open water reservoirs connected underground directly to the pumping wells via the conduit flow zone. *See, e.g.,* March 27, 2008 letter from Giattina to Corps at 2-4 (noting mining lakes could provide "open conduit for transfer of pollutants into" aquifer). Further, the "reservoirs" will be owned by private mining companies, which will be using large quantities of fuels, solvents and other hazardous

[12] Key conclusions of the USGS studies include that:

- Preferential flow zones within the Biscayne are areally extensive, extend throughout the Lake Belt area, and "intersect both the production wells and the borrow pit lakes constructed from mining operations." *See* Renken *et al.*, at 15. This finding is supported by the results of the aquifer test that was conducted by the USGS as part of its studies near the Wellfield, by the rapid water-level changes that occur in monitoring wells in response to pumping or canal-stage changes, and by the evaluation of outcrops and core holes throughout the Lake Belt and adjacent areas;
- These preferential zones "can effectively link areas of aquifer recharge, such as quarried rock mines that are vulnerable to contamination, and discharge points, *e.g.*, municipal well fields[, and] [t]hus . . . **provide extensive well-connected passageways for the long-distance advective transport to municipal wells."** Cunningham *et al.*, at 14 (emphasis added);
- These preferential flow zones "are capable of transporting dissolved chemical constituents over much larger distances" than the distances specifically tested in the USGS tracer dye studies. Renken *et al.*, at 12;
- Although groundwater flow and chemical or colloid transport in the vicinity of the NWWF appears to be fastest through a 0.9 m (3 ft) thick preferential flow zone between an elevation of -9.5 and -10.4 m (-31 and -34 ft), flow and transport also occurs through the other preferential flow zones. The variation in the rate of the advective transport through these different flow zones results in breakthrough curves with elongated tails. Thus, **"[c]ontamination events extending over days, weeks, or months in the Biscayne aquifer could lead to the degradation of water quality ranging from years to tens of years or more."** Shapiro *et al.*, at 11 (emphasis added);
- The preferential flow zone through which flow and transport is fastest "occurs near or is slightly shallower than the permitted depth for extractive mining under current regulatory restrictions. Therefore, **mine expansion could enhance hydraulic communication between borrow pit lakes near existing [Wellfield] production wells and permeable strata that form the major producing zone in the [Wellfield]."** Renken *et al.*, at 14 (emphasis added); and
- Microspheres used as surrogates for pathogenic oocysts of *Giardia* and *Cryptosporidium* traveled faster than the conservative tracers used in the field studies "suggesting that preferred flow path structure is particularly important for pathogen transport through the Biscayne aquifer near the [Wellfield]." Harvey *et al.*, at 9. Also, microspheres are likely to underestimate the potential transport of oocysts in the Biscayne aquifer, including as a result of the greater propensity of microspheres relative to pathogenic oocysts to attach to limestone surfaces and certain "characteristics of the Biscayne aquifer [that] are likely to facilitate microbial transport." *Id.* at 10.

materials for industrial activities around and actually *in* the "reservoirs." *See* March 27, 2008 letter from Giattina to Corps at 4 (similar discussion). In our groups' view, this is a recipe for, at best, significantly higher water supply monitoring, treatment and management costs in perpetuity, and, at worst, a public health disaster.[13]

The recent benzene contamination of the Wellfield demonstrated just how real and consequential this scenario is. In what even the Corps characterized as an emergency at the time, starting in 2005 and through the curtailment of mining in 2007 (following the federal court's remedy order), the Wellfield's southernmost wells, as well as the Wellfield itself, were contaminated with the carcinogen benzene at above the applicable limits (*i.e.*, Florida drinking water and groundwater limits). *See Strock*, 495 F. Supp. 2d. at 1231-32 n.166, 1233-34, 1193 n. 21. Based on the testimony of multiple fact and expert witnesses, the federal court concluded that the mining activities, and specifically the huge quantities of blasting agents used by the companies (between 20-60 tons per blasting event, *e.g.*, *id.* at 1235, n.178), which contain a petroleum-derived fuel, were the likely source of the contamination.[14] *See id.* at 1191-93 and accompanying notes, 1233-34; *see also* SEIS at Appendix G, Attachment B, G-39 (EPA agreeing that mining should be viewed as potential benzene source, given its close proximity and failure to identify any other source).

As for the proposed mining's adverse effects on the Everglades, the massive scale of the direct and permanent wetlands loss – up to 18,000 acres converted to mining lakes – is obvious enough. And the adverse effects of the mining lakes on the Everglades will reach well beyond simply the mining footprint itself. As Interior has warned, the proposed mining will "produce damaging seepage effects" on the Park and other adjacent Everglades areas, even as CERP intends to counteract such seepage. SEIS at Appendix G, Attachment C, G-15; *id.* at Attachment B, G-28, 29 (SFWMD stating that increased seepage would be "contrary to CERP goals" and mining expansion "could significantly impact the success potential and/or costs of ecosystem restoration"); March 27, 2008 letter from Giattina to Corps at 3-4 (similar). According to the SEIS, the proposed mining would increase seepage out of the Park by 25 percent; if other adjacent mining projects being permitted separately are also considered, seepage would increase by almost 45 percent. *See* SEIS at C-43 (seepage out of Park based on current mining proposal) and C-49

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[13] The County's state of preparedness to shoulder these responsibilities is presently unclear. For example, although a small mining fee has been levied for the limited purpose of funding pathogen treatment upgrades, we are not aware of any current estimates of the upgrade's capital and long-term costs (prior estimates have been in the hundreds of millions of dollars) or current plan for funding the capital costs if insufficient fees have been collected at the time construction begins as will certainly be the case if the SEIS' suggested 2014-15 date for the improvements to come on-line has any basis.

[14] The mining companies have contended that the existing and expanded mining lakes would not endanger public water supplies because many "protective barriers" would safeguard the water supply even if contaminant travel times in the aquifer are much more rapid that previously assumed. This argument, however, completely ignores the increased risks as a result of **chemical** contamination events. *See* SEIS at Appendix G, Attachment B, G-39 (EPA acknowledging that benzene contamination remains a concern). With any treatment strategy for public water supply protection, regulators need to know what to treat and be able to treat it. That is, a treatment strategy need not only address pathogens such as *Cryptosporidium* and *Giardia*, it must address anything that derives from mining activities, either directly or indirectly. And here, the Corps lacks basic knowledge about many of the products miners use in the Lake Belt.

(cumulative impacts). Overall, seepage from the proposed mining, by reducing hydroperiods, will reduce by half the extent of the key wetland types in the Lake Belt area. *See* SEIS at C-40 (reduction from 6,371 acres of wetlands classes 4 and 5 to 3023 acres).

EPA Must Take a Strong Role in the Permitting Process to Prevent the Proposed Mining's Unacceptable Adverse Effects

Our groups believe, based on the SEIS and the permitting process to date and as further discussed below, that the Corps is unlikely on its own to adequately address the grave environmental and public health threats discussed above. It is therefore imperative that EPA continue to play a strong role in the Lake Belt permitting process and utilize the full extent of its authorities under the CWA in order to ensure that the regional water supply and the Everglades are protected.

Starting with the contamination risk posed by the mining, the approach in the SEIS could hardly be further from precautionary and risk-averse with respect to protecting the public health. The SEIS parrots the mining companies' viewpoints or otherwise pays short shrift to the comments of other agencies and the findings of the federal court, which were based on extensive expert testimony and other evidence, including on such key concerns as the causes and implications of the benzene contamination incident, the mining companies' use of hazardous chemicals and the risk of contamination event, the usefulness of past monitoring results to predict potential of future pathogenic contamination, and (as discussed below) the need to update modeling to include new data about groundwater transport in the Biscayne Aquifer near the Wellfield. *See Strock*, 495 F. Supp. 2d. at 1191-93 and accompanying notes, 1233-34 (testimony regarding benzene), 1229-30 (testimony regarding pathogenic contamination events), SEIS at Appendix G, Attachment B, G-32 (County comments), G-39 (EPA comments).

Particularly egregiously, the SEIS essentially ignores the results of the USGS studies. While recognizing the lack of current scientific basis for, and thus the need to recalculate, the Wellfield's existing 60-day mining exclusion zone, the SEIS incorporates a recalculation of the 60-day boundary line that perversely ignores virtually everything we have learned over the last decade about aquifer characteristics and travel times in the vicinity of the Wellfield. *See, e.g.,* Appendix G, Attachment C, at G-18 (discussing need to incorporate new USGS data into modeling); C-2 (discussing not to use new model); C-21, 22 (discussing few changes made to model in response to comments on draft SEIS); C-52 (discussing model limitations). The result is that the SEIS relies on a "new" 60-day travel time boundary that is virtually identical to the existing inadequate one to bypass a meaningful discussion of the proposed mining's risks to the water supply, including the need for additional studies and various possible mitigation approaches, such as an expanded zone where mining would be prohibited or depth-limited, enhanced monitoring requirements, disclosure requirements relating to hazardous chemicals, better spill prevention and containment protocols, and/or requirements for bonding or other financial instruments, to name just a few possibilities.[15]

[15] The only significant change made by the Corps in the final SEIS in response to the criticism of its modeling was to update Wellfield pumping rates, which had the effect of **reducing** the protective zone. It

The Corps concedes that its chosen model (based on the so-called "MODFLOW" model) is of limited usefulness near the Wellfield and that the 60 day travel time boundary line produced by the model and relied on by the SEIS is likely not accurate. *See* SEIS at C-22, C-25 (model poorly calibrated near Wellfield); C-52 (model does not accommodate conduit flow); *id.* (regarding modeling's limited usefulness in vicinity of pumping well). The Corps also does not appear to question the validity of the USGS studies and results.[16] Rather, the Corps defends its choice of model by asserting that, given the high "heterogeneity" of the aquifer and the lack of detailed data regarding aquifer properties throughout the Lake Belt area, the model is the best choice for "comparative analyses" of hydrologic impacts at the regional scale, such as relating to seepage, because it contains region-wide data.[17] *See* SEIS at G-143 and C-53; *see also id.* at C-3, G-37.

This response is inadequate. The Corps cannot reasonably point to the "heterogeneity" of the aquifer as a rationale for discounting the importance of the USGS tests, given the absence of other data in this particular area (the likely area within 60 days travel time) and geological investigations showing the pertinent aquifer properties may extend throughout much of the Lake Belt, and given the Corps' willingness in its modeling to, in essence, extrapolate from **older** data from areas **farther away** and derived using **less reliable** testing methods. Whatever the usefulness of the Corps' model for seepage-related analyses (and it has limitations here as well, as discussed *infra*), this is no reason to use it for an unsuitable purpose, such as for calculating travel time at the Wellfield, particularly because its shortcomings are likely in this instance to produce results and decisions that are less, rather than more, protective of public health.

Finally, alternative approaches that are both more technically accurate and more precautionary are, in fact, available. Indeed, the USGS, which originally developed the

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is difficult to understand this selective updating by the Corps, particularly given that pumping rates, unlike the excavation of mining lakes, cannot be considered permanent.

[16] Indeed, the USGS and Corps collaborated in several of the investigations, which were conducted to help develop seepage management projects in the area for CERP. *See, e.g.*, Corps, *et al.*, Central and Southern Florida Project Comprehensive Everglades Restoration Plan L-31N Seepage Management Pilot Project, Draft Integrated Pilot Project Design Report Environmental Assessment (December 2008) ("CERP Seepage Pilot EA") at 5-3 (tests conducted as part of the Corps' CERP pilot seepage project found a preferential flow zone of very high permeability at the same depth as the preferential flow zone found near the Wellfield).

[17] The Corps also stated that it conducted a "sensitivity analysis," which is discussed more *infra*, to address concerns that its modeling was neither up to date nor able to adequately represent aquifer conditions in the vicinity of the Wellfield. *See* SEIS at C-31. But the "sensitivity analysis" discussed in the SEIS, in Appendix C, is wholly focused on seepage impacts, not contaminant travel time. *See id.* (discussing effect of increased hydraulic conductivities on seepage – *i.e.*, seepage increases – but failing to discuss any effects on travel times). Moreover, in conducting this analysis, the Corps appears to have only modified its model to update permeability values and **not** porosity values, which is the far more important parameter near the Wellfield and which USGS tests indicated was likely significantly less than the value of 15% assumed by the Corps (the lower the porosity value, the faster the travel time). *See* SEIS at G-15; Renken, R.A., K.J. Cunningham, M.R. Zygnerski, M.A. Wacker, M.A., Shapiro, R.W. Harvey, D.W. Metge, C.L. Osborn, and J.N. Ryan, 2005b, "Assessing the Vulnerability of a Municipal Well Field to Contamination in a Karst Aquifer," *Engineering and Environmental Geoscience*, Vol. XI, No. 4, November (pp. 319–331) at 319.

MODFLOW model, recently developed a "module" for it to incorporate the conduit flow process ("CFP") and current hydrogeologic data.[18] *See* SEIS at C-2. The Corps could also modify or update the MODFLOW model, such as by calibrating it with more field data, develop a new numerical model as it is did for the CERP seepage pilot project, use an analytical model such as was done in the federal court proceeding, or use some combination of these approaches. Any of these alternatives would almost certainly have been significantly more technically accurate and protective of the public health than the modeling analysis included in the SEIS.

The SEIS' approach to the proposed mining's adverse effects on natural resources is no more reassuring. While the Corps seems generally to acknowledge in the SEIS that the proposed mining will result in huge direct wetlands losses and an increase in harmful seepage from the Park and other publicly-owned Everglades wetlands, it also appears intent on trying to mitigate for, rather than prevent, these impacts. But the agency's mitigation proposals, as presented in the SEIS, raise as many questions and concerns as they address.

Taking wetlands mitigation first, the Corps apparently intends to continue with the approach used in the 2002 permits and to rely on a per-ton mining fee, which would be used primarily for various wetlands "improvement" activities in the Pennsuco and at various other sites around the County. We continue to strongly question the public interest in trading off the permanent and irretrievable destruction of irreplaceable Everglades wetlands in exchange for creation of non-native deep water lakes and environmental restoration activities at largely off-site, and sometimes extremely off-site, locations. *See, e.g.*, SEIS at Appendix G, Attachment B, G-33 (County questioning exchange value of mitigation).

But even accepting the basic premise of the proposed wetlands mitigation scheme, the enormity of the wetlands losses from the long-term mining plan is such the Corps has been unable to identify a sufficient number of mitigation sites **anywhere** in the County. *See* SEIS at 5-31; *see also id.* at Appendix G, Attachment B, G-33 (County concerns regarding "enormous wetland mitigation requirements" stemming from "extremely large wetland impacts").[19] Indeed, as it turns

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[18] According to the SEIS, the Corps rejected use of the CFP module because it only incorporates data for the Lake Belt's central area, rather than its entirety. *See* SEIS at C-2. But this is no reason not to use the module in the central area, which is where the Wellfield is located and where groundwater contaminant travel is at issue. The SEIS also asserted that the CFP module was not used because it was relatively new. *Id.* But the CFP module has been extensively documented in the technical literature and has already seen application elsewhere in Florida. *See* Shoemaker, W. B., K. J. Cunningham, E. L. Kunianski, and J. Dixon, 2008, Effects of turbulence on hydraulic heads and parameter sensitivities in preferential groundwater flow layers, *Water Resour. Res.., 44, W03501, doi:10.1029/2007WR00660;* Shoemaker, W. B., E. L. Kunianski, S. Birk, S. Bauer, and E. D. Swain, 2007, Documentation of a Conduit Flow Process (CFP) for MODFLOW-2005, U. S. Geological Survey Techniques and Methods, Book 6, Chapter A24, 50 p.; Melissa E. Hill, Angel Martin, and Marc T. Stewart, Performance Evaluation of the MODFLOW-2005 Conduit Flow Process Applied to a Karst Aquifer Underlying West-Central Florida, Southwest Florida Water Management District, 2379 Broad St., Brooksville, Florida 34604,University of South Florida, SCA 533 4202 E. Fowler, Tampa, Florida 33620.

[19] Also, the Hole-in-the-Donut mitigation bank, the largest identified mitigation site after the Pennsuco, is used for mitigation obligations from throughout the County, at the rate of approximately 500 acres annually, and is unlikely to be available to the extent projected in the SEIS. *See* CH2M Hill, Inc.,

out, not enough mitigation is available by way of Pennsuco wetlands acquisition, restoration and maintenance to cover the wetlands impacts of even the 2002 permits, as was originally intended. *See* SEIS at 5-67 (2002 permits would result in needed mitigation of 1,800 habitat units after the construction of littoral shelves), 5-31 (showing only 1,138 habitat units potentially available in the Pennsuco).

Just as significantly, the Corps also concedes that the mining fees will not provide a sufficient income stream to pay for the mitigation activities that are identified. *See* SEIS at 5-67, 68 (acknowledging that mitigation fee money may be inadequate to offset wetland losses from larger mining alternatives); *see also id.* at Appendix G, Attachment B, G-38 (EPA noting "high level of uncertainty and fiscal constraints" relating to non-Pennsuco mitigation). The shortfall in mitigation funds is actually likely to be worse than acknowledged by the Corps. The reason is that the SEIS assumes that future mitigation costs will be the same as costs under the permits to date, which it calculates to have been $35,000/habitat unit, increasing only at a set rate (because of unit costs) per year. *See* SEIS at 5-66. But there is no reasonable basis for this assumption about future mitigation costs, and costs will likely be considerably higher, **possibly by as much as 100 percent.**

Specifically, prior mitigation under the permits has been primarily in the form of relatively-inexpensive exotics removal in the Pennsuco and land swaps. Exotics management in the Pennsuco, however, is no longer a significant mitigation option (it has all been done). The key remaining mitigation opportunities there involve fee title purchases from willing sellers (principally a large tract owned by one of the mining companies) and will almost certainly be more expensive. *See, e.g.*, SEIS at 5-4, 5-68 (assuming willing sellers, future cost of Pennsuco mitigation will be >$50,000/habitat unit, considering $11,500/acre average acquisition cost to date in Pennsuco, property value inflation, exotics management costs, and 0.25 habitat units/acre ecological lift from exotics management); *see also* Lake Belt Mitigation Committee, Annual Report for 2008 ("2008 Lake Belt Mitigation Committee Report"), avail. at http://www.sfwmd.gov/pls/portal/docs/PAGE/PG_GRP_SFWMD_WATERSUPPLY/SUBTABS%20%20MIAMIDADECO%20%20%20MITIGATION/TAB1616095/2008%20LBMC%20ANNUAL%20REPORT%20FINAL.PDF2008 mitigation report (indicating cost of >$60,000/habitat unit for Pennsuco mitigation, based on information on acquisition and exotics management costs for 2005-2008 period provided by report). The other mitigation opportunities identified in the SEIS, which are outside the Lake Belt area and of a significantly different character than mitigation to date under the permits, also appear to be more expensive than assumed in the SEIS. The SEIS' two "high priority" mitigation sites, the Southern Glades area and the 8.5 Square Mile Area ("SMA"), as well as the other significant mitigation site identified in the SEIS, the Hole-in-the-Donut mitigation bank, are all estimated to cost significantly more than the $35,000/habitat unit relied on by the SEIS. *See* SEIS at 5-23 and SFWMD, Lake Belt Mitigation Committee Meeting Summary, Mar. 6, 2009, at 2, avail. at https://my.sfwmd.gov/pls/portal/docs/PAGE/PG_GRP_SFWMD_WATERSUPPLY/-SUBTABS%20-%20MIAMIDADECO%20%20-%20MITIGATION/TAB1610177/-

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Alternatives Analysis and Plan Formulation: and 2008 Report to the Governor and Legislature (Work Order 4600000851-W001; Draft Deliverable 2.1.1: Technical Memorandum – Evaluation Methods for Alternatives Analysis Supporting Plan Formulation (April 2008) at 34, available at www.sfwmd.gov.

MEETINGSUMMARY03-06-09DRAFT.PDF (estimated $80,000+/habitat unit cost for Southern Glades mitigation); 2008 Lake Belt Mitigation Committee Report at Appendix C, 2, SEIS at 5-21 (~$65,000/habitat unit cost for Phase 1 of 8.5 SMA mitigation; $3,584,412 cost for 55 habitat units); SFWMD, Lake Belt Mitigation Committee Meeting Summary, Nov. 30, 2007, at 2, avail. at https://my.sfwmd.gov/pls/portal/docs/PAGE/PG_GRP_SFWMD_WATER-SUPPLY/SUBTABS%2020MIAMIDADECO%20%2020MITIG-ATION/TAB1610177/-AMENDEDMEETINGSUMMARY11-30-07.PDF (current cost of $46,000/habitat unit for Hole-in-the-Donut mitigation).

Finally, if the mitigation opportunities identified in the SEIS remain affordable and available, their ecologic value will likely be less than projected in the SEIS. As EPA has pointed out, the SEIS does not account for how mining-induced seepage out of the Pennsuco will lower its ecological value for mitigation purposes. *See* SEIS at Appendix G, Attachment B, G-38. Based on the SEIS' modeling results, the other identified mitigation sites within the Lake Belt will be similarly harmed by the increased seepage resulting from the mining. And, even if the Corps' favored seepage mitigation approach for the Pennsuco proves viable, it is intended to ameliorate seepage impacts on this wetlands area only. Indeed, based on the information in Appendix C of the SEIS and agency comments, the seepage mitigation proposal would likely have harmful hydrologic impacts on at least several of the mitigation sites, including on those mitigation areas and littoral shelves that are proximate to the pumping site as a result of drawdowns caused by pumping.

As to the seepage problem itself, the SEIS contains **no** plan at all for how to address the significant increase in harmful seepage from the Park resulting from the mining. There is simply a reference to the mining companies' submission of a proposed mitigation plan in March 2009 without further information as to nature of the proposal or the schedule for NEPA and CWA compliance.

The SEIS does discuss proposals for how to possibly address the proposed mining's damaging seepage impacts on Everglades wetlands north of the Park. The Corps' preferred approach appears to involve a plan to construct an approximately seven mile new canal running between the Pennsuco and the mining lakes, and to perpetually pump water into the new canal with the intent of creating a seepage-mitigating hydrologic "ridge" between the two areas. But not only would this proposal still result in, according to the SEIS modeling, a reduction of key wetlands types in the Lake Belt area by one-quarter, *see* SEIS at 5-40 (6,371 acres of wetlands in classes 4 and 5 versus 4,884 acres with mitigation), but there is a long way to go, as EPA has recognized, before the proposal should be relied on to permit the particular mining for which it is to mitigate. *See, e.g.*, SEIS at Attachment C, G-20, 21 (listing questions about the proposal).

First of all, the proposal is unlikely to work as modeled in the SEIS. Indeed, because of the complexity, uncertainties, and high costs of pursuing seepage management in the Lake Belt area's "extremely difficult geology," the Corps has considered it necessary and appropriate for purposes of CERP to conduct a highly-sophisticated pilot project, including field tests and historical data analysis, simply to provide the technical information necessary to start formulating full-scale plans to address seepage out of the Park and the Pennsuco. *See* CERP Seepage Pilot EA at 1-2. This CERP-related seepage mitigation pilot project is to be implemented in the Lake Belt

just south of where the proposed mining-related seepage mitigation project would be constructed.[20]

Moreover, the SEIS failed to model the seepage mitigation proposal based on "current hydrogeological knowledge of the aquifer." *See* SEIS at Appendix G, Attachment C, G-8, 9 (County comments); *see also id.* at G-5, 6 (DEP's Bureau of Mining and Minerals Regulation expressing concern that seepage model "may be inadequate to address such a large, hydrologically complex, and unique area as the Lake Belt region"), G-18 (USGS noting new data and studies showing widely varying permeabilities, porosities, and flow characteristics throughout the Lake Belt and questioning whether that new information was included in the model), G-12 (similar Interior comments). Indeed, tests conducted as part of the Corps' CERP pilot seepage project found a preferential flow zone of very high permeability approximately 10-fold higher than assumed in the SEIS.[21] *See* CERP Seepage Project EA at 5-3, 5-16 (120,000 ft/day flow zone); SEIS at C-31 (7 to 25,000 feet/day range assumed for the same depth).

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[20] In connection with this pilot seepage management project, the Corps has stated that:

> significant uncertainty exists related to the use of these technologies at very large scales, particularly within the unique geology which underlies the L-30 and L-31N region. Namely that some of the project components have had far-reaching, unintended consequences. Implementation of technologies to control seepage shares the potential to create unintended consequences. Consequences which [sic] must be thoroughly investigated prior to full-scale implementation of individual Everglades Seepage Management project features.

Corps, Peer Review Plan for L-31N (L-30) Seepage Management Pilot Project Design Report (February 2008) at 4. The Corps has also stated that seepage management in the area has numerous uncertainties, including:

> []Impacts to water supply and flood protection[, t]he ability to achieve a predictable response from seepage management technology under a reactive operational scheme[, t]he ability to implement seepage management technology in unique hydrogeologic site conditions[, a] design that maximizes effectiveness … [, and] what configuration/design will effectively manage seepage [] on a seasonal basis.

CERP Seepage Pilot EA at 2-1.

[21] As discussed *supra*, the SEIS included a "sensitivity analysis" utilizing the higher, more up-to-date permeability values. While this analysis showed that seepage would increase by approximately one-third, the Corps determined that the increase was similar across all the mining alternatives and so asserted that use of the updated technical information would not affect comparative analysis. *See* SEIS at C-31-32. But the Corps did not model the mitigation proposal with the updated hydrogeological values, even though the new canal would have a depth of only 12 feet, the preferential flow zone has been found to generally start below 30 feet, and the Corps has considered the minimum depth for a seepage management barrier for purposes of the CERP seepage pilot project to be at least 30-40 feet, with a preferred depth of 80 feet (and in fact rejected shallower seepage technologies because they would not affect deep groundwater movement). *See* CERP Seepage Project EA at 4-14.

Second, the costly, highly-engineered mitigation project will also have its own significant environmental impacts. For example, it will rely on huge amounts of additional water, on the order of 60 million gallons per day, being imported from the regional system and perpetually pumped into the new canal to replace the water seeping eastward because of the mining lakes. *See* SEIS at Appendix G, Attachment C, G-5, 5-43. Under drought conditions, as EPA pointed out, this means that the public would be deprived of water supply in order to "offset private sector mining-related seepage impacts." *Id.* at Appendix G, Attachment C, G-39 (EPA comments); *see also id.* at G-5 (similar concerns by DEP). If the water is not made available to the mitigation canal, then drainage from the Pennsuco will, in fact, increase. *Id.* And the water imported from the regional system may contain pollutants, which would be conveyed by the canal to immediately upgradient of the Wellfield. *Id.* at G-9 (County expressing concern that mitigation project would introduce pollutants to Wellfield).

There is certainly something paradoxical about the Corps' promotion of the construction of miles of new canals and pumps for private sector gain at the same time that it is leading a publicly-funded initiative to try to repair damage to the Everglades caused by prior generations of similar water management systems. Indeed, the mitigation project would go in virtually the same location as a planned CERP project that is intended to help restore more natural water flows in the area, including by reducing seepage from the Pennsuco. The SEIS however fails to meaningfully discuss possible conflicts and the necessary coordination with CERP activities and goals. *See* SEIS at Appendix G, Attachment B, G-29 (SFWMD stating concern about possible conflicts with CERP projects); *id.* at Attachment C, G-16 (Interior stating same); *id.* at Attachment B, G-34 (County stating same).

Finally, the mitigation plan may not receive the necessary authorizations and permits and thus may not be implementable. Federal and state law, in order to ensure adequate water is available for CERP and existing water supply needs, now prohibit the large-scale diversion of regional water supplies of the nature envisioned by the seepage mitigation proposal. *See* Water Resources Development Act of 2000, Pub. L. No. 106-541, § 601(h)(2) (Dec. 11, 2000); SEIS at Appendix G, Attachment B, G-29 (SFWMD stating that water is not legally available to implement mitigation proposal); *id.* at Attachment C, G-15 (Interior stating similar). The pumping system will also need discharge permits, which the Corps has encountered difficulties obtaining in the past for new pumps in the area. *See, e.g.*, CERP Seepage Pilot EA at 1-7.

In any event, if the Corps decides to move forward with this seepage mitigation approach, it will need to prepare an EIS to look at full range of potential impacts and alternatives. When proposed mitigation has significant environmental effects, an EIS for the mitigation proposal is required. *See National Wildlife Federation v. Marsh*, 721 F.2d 767, 782-84 (11th Cir. 1983) (even for mitigation proposals with only beneficial effects). And where actions are "connected" – that is, "closely related" or "interdependent parts of a larger action and depend on the larger action for their justification" – NEPA's implementing regulations require the actions to be considered together in the same EIS. 40 C.F.R § 1508.25(a)(1)(iii); *see also Kleppe v. Sierra Club*, 427 U.S. 390, 409-10 (1976) (where several proposals "that will have cumulative or synergistic environmental impact upon a region are pending concurrently before an agency, their environmental consequences must be considered together"). Thus, moving ahead with a mining proposal that threatens significant increased seepage out of the Everglades without a fully

developed mitigation proposal would violate not only the Clean Water Act and NEPA regulations regarding documenting and providing adequate mitigation for the adverse effects of a proposal; it would also run afoul of rules that require that all aspects of a proposal, as well as connected actions, be considered together in a single EIS.

We appreciate that EPA is currently engaged in the Lake Belt permitting process because it recognizes the gravity of the threats from the proposed mining and the need to adequately address them in any permits that are issued. To this end, and as we noted at the top of the letter, our groups request that EPA ensure that: (1) a wetlands mitigation plan is developed for the proposed mining that identifies *up-front* mitigation sites and activities that will fully mitigate for all projected loss of wetlands values, and the permits require the mitigation's completion; (2) the Corps complies with NEPA related to any seepage mitigation proposal; and (3) the needed Wellfield protection mining exclusion zone is reevaluated based on the recent USGS data and studies addressing aquifer properties near the Wellfield. Until this is done, and consistent with comments from other agencies, EPA should ensure that, at a minimum, no mining is allowed in areas adjacent to the Park and the Pennsuco wetlands, as identified in Alternative 7 of the SEIS and the "triangle" mitigation area proposed as a seepage mitigation exclusion area in the SEIS (at 5-18), and in those areas west of the Wellfield where mining was halted in 2007 and early 2008 pursuant to court order. *See* SEIS at Appendix G, Attachment B, G-27, 28 (SFWMD expressing concerns about seepage impacts and conflicts with CERP unless mining is limited to northern and eastern portions of Lake Belt); Attachment C, G-9 (County requesting that mining closest to Wellfield be phased to protect public water supplies and to allow for the development of additional information). We further request that EPA consider conducting a pilot project for any seepage mitigation plan proposed; alternatively, EPA must require that any mining closer to the Park or the Pennsuco wait until the CERP seepage pilot project is completed and supplemented if necessary. EPA should also consider the need for the collection and analysis of additional data regarding hydrogeologic properties in the area of planned mining that would allow more accurate modeling.

We emphasize that the SEIS acknowledges that simply allowing mining the amount of limestone resources remaining to be mined under the now-vacated 2002 permits (Alternative 2) would provide for mining through at least 2016 (and recent data suggests even longer). SEIS at 4-102. While some of the specific remaining areas slated for mining under Alternative 2 should not be mined because of Wellfield-related concerns, a similar amount of acreage in areas slated for mining over the long term in the Lake Belt, particularly those to the north and east of the Wellfield, could substitute for areas remaining in Alternative 2, thus allowing mining to continue in the Lake Belt over the medium term. This would allow needed studies and analyses to be completed to assure the safety of the public water supply, as well as the availability and feasibility of seepage and wetland mitigation options, and steps to be taken to adequately address these concerns. It would also allow for the continued growth of alternative sources, which the SEIS acknowledges has occurred over the last several years.

Again, we would very much appreciate the opportunity to meet with you to discuss in greater detail our significant concerns about the proposed expansion of rock mining in the Lake Belt area and will contact your staff in the near future to seek to arrange a meeting. In the

meantime, please contact Brad Sewell at (212) 727-4507 or Ansley Samson at (718) 809-3126 if you have any questions about this letter.

Sincerely,

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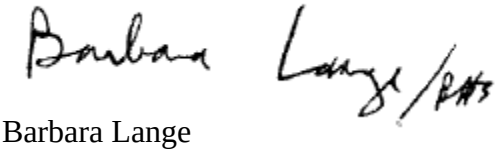

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